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ARMS AND POLICY

1939-1944

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BY HOFFMAN NICKERSON

THE INQUISITION

THE TURNING POINT OF THE REVOLUTION

THE AMERICAN RICH

CAN WE LIMIT WAR?

THE ARMED HORDE

ARMS AND POLICY 1939-1944

*In collaboration with Colonel O. L. Spaulding
and Colonel J. W. Wright*

WARFARE

ARMS AND POLICY

1939-1944

**BY
HOFFMAN NICKERSON**



**G. P. PUTNAM'S SONS
NEW YORK 1945**

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MANUFACTURED IN THE UNITED STATES OF AMERICA

To J. S. N.

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INTRODUCTION

AFTER every war in which the United States has been engaged, Americans have soon lost interest in military things. This loss is a reason for running the risks of writing about a war which was still going on when nearly all of the following text was finished.

The social consequences of the present conflict will indeed become more and more evident. On the other hand, the necessary connection between the social ferment through which we are passing and the military technique peculiar to our time has as yet been little noticed, and may be missed altogether unless the elementary technical lessons are clearly seen. To call attention to those lessons and to that connection this book has been written.

By the autumn of '44 the new technical and social pattern of war was already clear enough to warrant certain definite conclusions. Subsequently even the epoch-making discovery of the atomic bomb seems certain to carry forward, not to reverse, existing trends: The strong family resemblance between the mechanized campaigns and the fifth columns of the present war from Poland in '39 to France in '44, the sprouting of present technical and social developments in 1914-18, and the essential unity of revolutionary mass warfare beginning with the French Revolution, are all basic facts without which we cannot begin to understand our own time.

Very naturally, most contemporary war books have been "human-interest stories," concerned chiefly with the sufferings, endurance, and heroism of individuals. It is right that this should be so. If, however, we ask why the endurance and courage of those individuals were called upon in a particular place or manner, "'And what good came of it at last,' said little Peterkin?"—if indeed any good did come—then we must lift our eyes to the High Commands and the governments which they serve. The high places too are filled by fallible men of like passions with us little people who must obey them. Most of those men, we may be sure, are themselves very humble in spirit under their fearful weight of responsibility. Their

power to control events is often less than it seems, because it is limited by secret compulsions of circumstance at which we can only guess. Their errors, or what seem to be their errors, are horribly plain for the world to see. After some unhappy chance has wrecked one of their enterprises, every irresponsible critic soon begins yapping to all mankind how he, out of his ignorance, could have arranged matters much better. The chiefs live, as it were, at the center of a whirlpool of every sort of conflicting desire and request. Nevertheless, sitting at desks or around conference tables, they must go on throwing dice with Destiny, well knowing that the dice are loaded.

From Pearl Harbor to the crystallization of the United Nations' strategy against Germany, the task of the High Command in Washington was peculiarly important. The United States was the chief source of unallocated power, and there was a wide choice between the actual and potential theaters where that power might be applied.

Major decisions, once taken, look simple, but the basis of fact and assumption for each decision is bewilderingly complex. Those who take them must thread a maze of difficulties. The decisions taken in the last few years have not only had to contend with the perpetual "fog of war," the inevitable margin of ignorance as to what and how much the enemy and ourselves may be able to do, and the equally inevitable pull and haul between Allies. Foch is reported to have said that until he himself had commanded, or tried to command, the Allied armies in France in 1918 he had never realized how lucky Napoleon had been in being opposed by coalitions. The atmosphere of at least some Anglo-American decisions is humorously reflected in a story familiar to Washington which has recently found its way into print. A high British officer, approaching the closed door of the room in which the Combined, i.e., the U. S. and British, chiefs of staff were conferring, heard two shots from within. "My God," he said, "it's come at last. They're settling it with pistols." In fact it was only a demonstration of a new small arm. As if the foregoing were not enough, the Combined chiefs of staff have also had to take into account the effect of local circumstances half the world away and the effectiveness of tactics so new that they can have been but little tested.

As the decisions of the high commands in the conflict which began in September, 1939, have been directed by the nature of mass

warfare itself, so the events shaped by those decisions may best show us a few of the lessons—some of them already very clear—of that conflict.

Whatever the shortcomings of this book, the author knows of no other yet published study of recent strategy and policy. The ugly military effects upon both of prevailing “leftist” trends seem as yet to have been systematically neglected.

In a sense, what follows is a sequel to *Can We Limit War?* and *The Armed Horde*. In *Can We Limit War?*, published in 1934, the rise and fall of the historical limitations of war were sketched, and the unique misfortunes of our own period noted in the chapter entitled “Democracy and Mass Massacre.” *The Armed Horde*, 1793–1939, of which the first edition appeared in 1940 and the second early in ’42, discussed the vast conflicts of our period in more detail, carrying the story to the beginning of the present struggle and venturing certain observations on the opening phases of that struggle. Apology is therefore due, and is hereby made, to the readers of those books for an inevitable minimum of repetition.

PART ONE

BACKGROUND

I. THE FIRST THREE ACTS

THE present war is the fourth bout of prolonged mass warfare in human history, the third great industrialized war, and the second mechanized war. The first three prolonged mass wars were the Revolutionary-Napoleonic from 1792 to 1815, the American Civil War of 1861-65, and the war of 1914-18, the first great industrialized conflict being the American Civil War.

The distinguishing mark of mass warfare is full mobilization. Throughout a large human group, all physically fit men whose labor is not essential to the survival of the group must be compelled by law to serve in the armed forces. The war parties of barbaric tribes like Red Indians or Tartars are thus ruled out because of their comparatively small numbers. For mass warfare you need civilized, agricultural peoples. Universal compulsory service for women is among its latest developments.

Why then did mass warfare appear only in the French Revolutionary levy in mass of 1793? For thousands of years human conflicts have from time to time blazed up to a white heat of intensity. Homer's world, for instance, shows us a kind of war in which, except for a handful of lucky fugitives, all men of the conquered side fit to bear arms are killed, while the old people are left to die and the young women and children enslaved. A community threatened with such things of course resists to the utmost. Further, both ancient and medieval historians occasionally speak of very large armies, and many if not most ancient and medieval states made all freemen legally liable for armed service.

The answer has nothing to do with the undoubted fact that the wealthy world of today can afford war on an unprecedented scale. Of course, the percentage of the population which can be spared for any length of time from food production and other necessary work will rise with increased physical science and wealth. The point is that that smaller percentage which our ancestors—had they mobilized in recent fashion—could have maintained under arms for any considerable length of time was never so maintained.

In the ancient world that which made such a thing impossible was slavery. In every ancient community of which we have record a large part of the population were slaves, on the whole of similar racial stock with their masters. These human chattels seldom rebelled. In exceptional cases a few of them could be enlisted to fight for their masters. This, however, was a desperate measure. In general slaves were not thought fit to be soldiers, and could never be drafted for armed service. Whatever their numbers in proportion to the free citizens at different times and places may have been, they were certainly numerous enough to have made a total mobilization on the modern scale impossible.

In medieval times the obligation of compulsory service was limited to forty days in the year, except when one's own immediate neighborhood was invaded. Also custom, which had the force of law, drastically limited the taxing power of governments.

Much of this limitation survived into early modern times. Moreover, nearly all early modern armies were wholly composed of volunteers. Even in eighteenth-century Prussia, where a small proportion of peasants was forced to serve, there was a large volunteer element.

Consequently ancient, medieval, and early modern wars could go on for lengths of time which seem to us out of nature. The length of the horrible Thirty Years' War in the seventeenth century speaks for itself. The Peloponnesian War between the Athenian and Spartan confederacies of ancient Greece also lasted for nearly thirty years. The fourteenth- and fifteenth-century armed bickerings over who was to be king of France are grandiloquently called the Hundred Years' War. Certain pedants still try to ignore this generalization, especially as to the frequent little scuffles between medieval Christians, but their folly seems certain to yield to the advance of historical science.

Modern mass warfare resulted from the failure of the legitimate governments of Europe to suppress the French Revolution. When that revolution broke out, Christendom was still enjoying the third successful limitation of war in the history of Western civilization. In other words, its wars did not strain the social order. That which we may loosely call the eighteenth-century limitation resembled the previous imperial Roman and medieval Christian limitations only insofar as it depended upon a general agreement sufficiently unanimous to be called a moral unity, supported by appropriate military forces which, compared with today's mass armies, were not much more than police forces. Unhappily for the world, that unity was largely negative. Its chief root was only fear and disgust at the crimes and the destruction of the horrible Religious Wars. As a positive rallying point for the religiously divided societies which the indecisive result of those wars had substituted for the old unity of the Western or Latin church, the eighteenth century could offer only a humanistic agreement among educated men as to the desirability of moderation and good manners—excellent things indeed, but insufficient guides for the boiling energies of Western man.

The armed forces which supported eighteenth-century humanism were comparatively small bodies of professional soldiers like the armies of the Religious Wars. In almost everything else, however, they differed from their wretched and disgusting predecessors. Toward the end of the religious struggle it had become clear that the wholesale indiscipline and pillage resulting from the lack of a regular system of supply were not only a curse to the community but also a military disadvantage. In other words, soldiers regularly paid and supplied, rigidly disciplined and held in close formations, not only spared civilians but could also be counted on to defeat gangs of miserable, straggling criminals.

Until a few years ago it was the fashion among historians to despise eighteenth-century military methods as formalized and unreal. For instance, Lord Hay's taunt at Fontenoy, "Gentlemen of the French Guards, fire first!" was understood as courtesy, whereas the purpose of its bravado was to provoke the French into firing too soon, so that, while they were recharging their smooth-bore, muzzle-loading muskets, the English might advance and deliver their own volley at murderously close range. Moreover, the armies of that day could endure, without breaking, a greater daily and a far

greater hourly percentage of loss than any recorded before or since. Today only fanatical determinists, which in contemporary jargon means believers in fate and doom, will insist that the eighteenth-century regulars must inevitably have failed to put down the French Revolution. Detailed study of the critical early campaigns strongly indicates that with a little luck, especially in the matter of leadership, those regulars should have won.

Nevertheless, the victories of the French Revolution set fashions in thought, and most of all in military thought. Ever since, Christendom has been hypnotized by the revolutionary illusion, i.e., the childish belief that the chief means of increasing human happiness is not individual self-improvement toward some spiritual goal but mere change in social conventions and in laws.

Those interested in intellectual origins will, of course, see in this the logical result of Rousseau's idea of natural goodness. That half-baked Messiah of all modern subversive movements tried to reverse all previous teaching as to human good and evil by maintaining that there was no element of evil within every one of us and perpetually at strife with our impulses toward good. Our meannesses and wickednesses, so he said, were not an essential part of our nature but were artificially plastered onto us by bad social arrangements. For further analysis of Rousseau and his innumerable followers the reader is referred to the dry humor and common sense of the books of Irving Babbitt.

We may here content ourselves with cataloguing the historical consequences of Rousseauism in the military sphere. Modern revolutionary "idealism" has consistently worshiped force. Itself the child of successful insurrections, whenever it has captured a government it has made that government an instrument of wholesale compulsion. Thus it has invented an all-devouring form of war destructive of every scrap of personal liberty and as yet incapable of achieving the one rational object of war, a better peace.

From Rousseau's day to this, the essence of revolutionary war has been a new military instrument, combined with what was to the eighteenth century a new spirit.

The new instrument is the mass army recruited by universal, compulsory service. Late in the critical summer of 1793 when the revolutionary leaders justifiably feared defeat and subsequent execution as common criminals, they proclaimed a levy in mass, a total

mobilization, in terms which could hardly have been more sweeping. It is beside the point that the decree was desired chiefly by the unsoldierly demagogues who led the Paris mob, that the recruits which it actually produced were so few that their arrival may not have been decisive. The fact remains that the idea chimed perfectly with the revolutionary spirit and still dominates warfare.

What was then the new spirit was originally that of a holy war, a crusade. At its best this mood touches the summit of heroic devotion, but even then its tendency to identify its enemies with Satan may inspire horrible excesses. In practice it shades off into megalomaniac imperialism, so that widening circles of victims begin to wonder whether they are being "redeemed" or merely being robbed and murdered without benefit of idealism.

Since there can be no compromise with evil, crusading states must try to annihilate their opponents, and for such vast enterprises numbers are necessary. Moreover, universal compulsion, although it makes nonsense of the democratic slogan of liberty, suits exactly the second and more fundamental democratic dogma of equality. The French revolutionary enthusiasts in uniform could be persuaded to endure hardships on the march and in bivouac which would have discouraged re-enlistments in a regular force of the day. If as a natural reaction from those hardships they indulged themselves after a fashion alien both to police forces and to eighteenth-century regulars, civilian revolutionaries pardoned such peccadilloes for the sake of the Holy Cause.

No one should attempt to deny the occasional genuineness of revolutionary faith. Had not its essential error been supported by elements of truth, so monstrous an abortion could not have survived to plague mankind. We are here concerned only with its actual results both in waging war and in preventing peace.

The principle of the levy in mass was consolidated by the French conscription law of 1798, which made all able-bodied citizens from twenty to twenty-five liable for service—if they could not succeed in hiring a substitute. Although the age limits seem to us modest, we must remember the imperative demands made by the comparatively simple agriculture of the day. Also the peoples, accustomed to the mild rule of eighteenth-century kings, were then unfamiliar with governmental tyranny either in the form of conscription or of its corollary, high taxation. For the first time in history nearly all

the young men of a nation were now to be forced to serve far from their homes in what seemed an endless war. Future conflicts would no longer be terminated by mutual agreement when comparatively slender royal treasuries began to feel the strain of hiring men to fight. Henceforward they could end only by the total exhaustion of the defeated group.

The French Revolution and Napoleon its soldier were condemned to stumble forward from victory to victory into total defeat because they could neither destroy their enemies nor reconcile themselves to those enemies. Any real peace must do one or the other. As the failure of the 1919 settlement has conspicuously shown, to humiliate and anger a defeated opponent while leaving him the power to renew the struggle produces no peace but only an uneasy truce.

The difficulty—which confronts us today—is of the essence of revolutionary mass warfare. The French Revolution, like any other violent shock to established things, necessarily threatened to provoke armed conflict. The leaders of that revolution did not attack fundamental morals by denying the immemorial right of ownership. On the contrary, they vehemently proclaimed that right. Nevertheless, in attacking hereditary monarchy and legal distinctions between social classes they struck at things which were not only the prized possessions of individuals but also, ever since the Dark Ages, the recognized guarantees of social stability. Even in the ghastly turmoil of the Religious Wars the institution of kingship had not been questioned. It is true that the revolutionary French international program was by no means mere naked aggression. On the continent of Europe feudal privileges natural in an earlier and simpler time had indeed become fossilized nuisances. Hence the revolutionary program at first found some support in Italy and the Germanies, even occasionally elsewhere. That support, however, was far too weak to revolutionize non-French Europe. Outside of France the masses either were politically inert or else continued to follow leaders who were outraged at the killing of a king and the massacres of the French gentry. Thus the First French Republic never had the slightest prospect of destroying its rivals, and never seriously tried. On the contrary, the republican leaders, well knowing the undercover divisions within France itself

and the fragility of their own insurrectionary title to rule, soon became anxious for the peace which they could never achieve.

Reconciliation was attempted but not attained. Long before the conquering marches of the French armies had reached their limits, Napoleon had tried to assimilate himself into the dynastic system by calling himself an hereditary sovereign. He nonetheless continued his attack on feudal privileges, and in general the gap of suspicion and fear between the French and their rivals continued. His triumphal entries into Berlin and Vienna and his sweeping amputations of Prussian and Austrian territory further angered the European ruling class, while leaving Prussia and Austria still potentially formidable opponents. Meanwhile popular support of or acquiescence in the revolutionary program had faded as the French wars of conquest—to the accompaniment of looting by the French soldiers—continued. Within little more than six months of Napoleon's first disaster, the loss of his army in Russia, all Europe was leagued against him and his doom was sealed.

Next to the inability of Revolutionary-Napoleonic France to make peace, for our purpose the chief lesson of the first round of prolonged mass warfare is the exhaustion of French manpower, together with the reasons why that exhaustion was so long postponed and why the manpower of no other country was affected.

Throughout the struggle, the one permanent and open opponent of the French was England—for we may neglect the ten months of nominal peace between them in 1802 and '03. England's sea power spared her the necessity for a mass army. Her armed effort was therefore confined to her fleet plus a comparatively small land force voluntarily recruited on the old model. While Continental coalitions rose, fell under Napoleon's great blows, and rose again, she continued inviolate.

Meanwhile the French contended again and again on land against a changing but constantly renewed series of opponents. At least nominally conscript since 1793, France engaged in major land operations from 1792 to 1797, and again, after a two-year interval of lesser campaigns, in major operations in '99 and 1800. By the end of the century her population of perhaps 25,000,000 had had over 700,000 killed and wounded. The devil's dance, beginning again in 1805, might have been at least interrupted in 1807 had it not been

for Napoleon's gross error of invading Spain. As it was, the strain on French manpower steadily continued until March, 1814, to be renewed for the short Waterloo campaign of 1815.

Throughout the period Austria fought the French with volunteer forces from 1792 to '97, again in '99 and 1800, and again in 1805; with conscripts in 1809 and once more in '13 and '14. Russia, never conscript, was compelled to great efforts only in 1807, '12, and '13. Prussia, with her small, traditional measure of compulsory service, carried the chief burden of the war in its small beginning in 1792, made peace in '95, again played a main part briefly in 1806, declared universal compulsory service for the campaign of '13, and fought again with conscripts in '14 and '15.

Notwithstanding what seems to us the modest scale of Napoleon's conscription, his demands on French manpower were both unprecedented and strongly opposed. By his dictatorial powers he could call conscript classes ahead of their legal time, and this he repeatedly did. The class of 1807 was called in November, 1806, that of '08 in March, '07, that of '09 in January, '08, and that of '10 in September, '08. The machinery of compulsion, however, was no longer working smoothly. In 1809, although he hoped to put 300,000 in the field in the Germanies, he could actually raise only somewhat more than half that number. In the summer of 1813 he was able to raise his field army to 400,000 by calling the entire class of that year and of '14, but by that time armed bands of deserters and of military police were fighting each other inside France to the number of perhaps 100,000. For the campaign of 1814 not more than 100,000 could be mustered to hold the critical northeast frontier, perhaps only 90,000. In the early stages of his preparation for his last adventure, the Waterloo campaign of 1815, he did not dare call another conscript class. In May, too late for it to be of service, he tried to do so by subterfuge, "recalling" the class of '15, which had been called the year before but had been dismissed to their homes.

As to Revolutionary-Napoleonic technique, except for a single point to which we shall come in a moment, we need note only its close connection with the revolutionary mood. In the long-service armies of the old kings every soldier, the product of years of training, had his value, but in a nation dedicated to "Liberty" conscripts were expendable. To persuade them to expend themselves, they had to be fanaticized. Only thus could the hardships and sacrifices of

their tremendous marches, each intended to force immediate battle, and of their continual offensives pushed home regardless of cost, be endured. The deceptive rapidity and temporary completeness of the victories won by armies of French enthusiasts who were also chronic looters bred the illusion that force is all-powerful, and thus prevented peace. Slowly roused counterenthusiasms made it possible to turn their own methods against them and at last swept them away.

In the field of weapons the first round of prolonged mass warfare produced nothing new. Old-fashioned, smooth-bore, muzzle-loading muskets and cannon were merely used in accordance with novel tactics. Chief among these, perhaps, was the newly discovered ability of concentrated artillery to prepare an assault by means of "the case-shot attack." For centuries cannon had far outranged the infantry musket, which could not be relied upon to hit even the largest targets much more than a hundred yards away. On the other hand, artillery firing case shot, the antipersonnel projectile of that day, was effective up to four hundred yards. In addition to numbers, enthusiasm, and rapid marches, the success of Revolutionary-Napoleonic offensives was vastly facilitated by massed batteries which could gallop forward, unlimber out of musket range, and cut a sector of the defensive position to ribbons with "case."

The one interval of real peace vouchsafed to Christendom since 1792 was achieved because the settlement after Waterloo was made not on Revolutionary-Napoleonic but on eighteenth-century lines. As I have written in another place, the wise and kindly ghost of the old humanism rose from its grave to speak of moderation and decorum. With all their shortcomings, the kings and aristocrats of the Congress of Vienna well knew that force, although indispensable in human affairs, is not all-powerful and that the chief instruments of government are persuasion and consent. Although in Austria and Prussia they had found it expedient to use conscription and in Prussia even a levy in mass against the French authors of these devices, they were too wise and too strong to permit popular passion to breed revenge. Incidentally, the Prussians, who had copied the Revolutionary armies more faithfully than any other traditional government, were also the least moderate of the victors. The other allies and the restored French dynasty overruled the Prussians and made a real effort to secure peace by consent through the principle

of "legitimacy," everywhere supporting traditional governments, chiefly dynastic but including that of the Swiss Republic.

For more than a generation after the settlement at the Congress of Vienna, Europe saw no conflict between any two great powers, and until 1914, ninety-nine years after Waterloo, no general and prolonged mass war.

Nevertheless, the ghost of the eighteenth century was only a ghost, whereas the revolutionary spirit was not dead but sleeping, as the future was to show. For strong hints of future massacres the nineteenth century need only have consulted its two chief military thinkers, Clausewitz and Jomini. These two dissimilar men both fully understood and clearly said that the new military technique resulted from a new form of government and society which had fundamentally altered the previously existing relations between human groups. With our knowledge of the future, standing as it were upon the shoulders of our ancestors, we can see that the generation after Waterloo had by no means established a true limitation of war. Even without reference to the general movement of thought, in literature romantic-naturalist, in economics and politics democratic or at least "liberal," revolutionary possibilities survived in the military policies of three out of the four great continental European powers.

Only Russia retained a long-service army of the eighteenth-century type. France, Austria, and Prussia continued the legal theory of universal liability for service—France after a short and unsuccessful attempt to depend solely upon volunteers. In practice both the French and Austrian systems were a compromise; only a small part of each annual class actually served, the individuals being designated by lot, while paid substitutes were permitted and re-enlistments encouraged, so that the conditions and spirit of the force were not unlike those of a volunteer army. From 1818—three years after Waterloo—to 1870 the French term of service varied between five and eight years. Prussia, on the other hand, not only kept the universal legal obligation to serve but also added the formidable novelty of universal peacetime training. Moreover, the general tendency of Clausewitz and Jomini, both of whom fully grasped the military advantages of the hard-driving methods invented by Revolutionary-Napoleonic France, was to recommend that these methods be continued. The most for which Jomini hoped in the imme-

diate future was a partial return to the eighteenth-century habits of position warfare, moderate marches, and conservation of soldiers' lives. In short, men were still cheaper than before the Revolution had enthroned "Liberty."

The next great explosion, the American Civil War of 1861-65, followed the Revolutionary-Napoleonic pattern but added to that pattern the new factor of industrialism. Like Napoleon, the Southern Confederacy fell through exhaustion of manpower, but that exhaustion was hastened by the superior Northern power to manufacture goods and especially instruments of war by machinery. The high but perilous and potentially horrible crusading spirit, though not so violent as in the French Revolution, was nevertheless present insofar as the detestation of the Southern institution of Negro slavery was present on the Northern side.

The part directly played by antislavery exaltation can easily be exaggerated. Throughout the contest most Northern soldiers would probably have agreed with Lincoln's statement in his Second Inaugural Address that they were fighting less for Negroes than to preserve the Federal Union, temporarily broken by the secession of the Southern states. Nevertheless, the underlying cause of conflict was the economic and moral difference between the sections caused by the presence of great numbers of Negro slaves in the South. Slavery is certainly inconsistent with the spirit of Christian morals, for if all men are brothers in Christ it is strange that some should be bought and sold like animals. On the other hand, strong moral and practical arguments could be made in favor of slavery—which arguments we shall probably begin to hear soon again if the tendency toward state serfdom via "welfare legislation" continues. In any case the Southern feeling for liberty was concentrated on the maintenance of local liberties, i.e., states' rights, against outside interference. Indeed, in the beginning the average nonslaveholding Southerner, belonging to the weaker and therefore the threatened party, felt more strongly about states' rights than anyone except a handful of fanatical Northern abolitionists felt about slavery.

Nevertheless the almost religious exaltation peculiar to wars of doctrine was present on both sides. Only in such a mood could Northern individuals have glorified the homicidal mania of a vile fanatic like John Brown. As in the Revolutionary-Napoleonic war,

one side could truly say that it was fighting—in part, at least—for a mystical idea of liberty and for the ending of what it considered great wrongs, while the men of the other side unanimously replied that they were fighting for the concrete liberty of deliverance from invasion.

Like the French revolutionaries, both the American North and South began with volunteering and soon found themselves forced to compulsory recruitment, the South in '62, the North in '63. As was then customary outside of Prussia, the North permitted the payment of substitutes. On both sides the system was that of calling up individuals chosen by lot within widely separated age limits, in Northern practice from twenty to thirty-five, although all from eighteen to forty-five were forced to enroll. Out of a population of 22,000,000 the North raised armies of nearly 3,000,000. Allowing for short-term volunteers at the beginning and short-term conscripts toward the end, this gives a three-year average of not much more than a million and a half with the colors—but even that figure is 7 per cent of the whole Northern population. Out of its population of about 5,500,000 whites, the South finally drafted practically all males from seventeen to fifty, plus numbers of boys and older men, probably more than 1,200,000 all told. Negroes were sometimes used for military labor, and toward the end a few Negro combat units were used on the Northern side, and at least proposed in the South. Outnumbered by land and blockaded both by land and sea except along the desolate Mexican border, the South fought to the last gasp. In February, 1865, the last report of the Confederate Conscription Bureau showed that within what was still Confederate territory east of the Mississippi every available man was in service—insofar as governmental authority could put him there. The qualification is important, for in the America of that day desertion was easy and frequent.

Politically, the peace was one of destruction. The Confederate government was wiped out. Not content with revolutionizing Southern society by abolishing slavery without compensation, the victorious North temporarily succeeded in putting the Southern whites under the control of their former slaves by giving the vote to the blacks while denying it to Southerners who had fought against the Union.

Nevertheless, in spite of so much desperate fighting, a thorough

peace of destruction was not achieved. Such a thing would have necessitated wholesale massacres of Southern whites after the surrender, followed by a cold and continuing ferocity which the North never showed. To their honor, the Northern authorities executed no Southern leaders. They contented themselves with hanging the accomplices in Lincoln's assassination, together with a few criminal commandants of Southern prison camps. Nor was the North willing to maintain indefinitely an army of occupation on Southern soil. Such an army soon seemed an expensive and unnecessary nuisance. Once freed of occupying Federal troops, the Southern whites quickly regained mastery in their own house. To this day they have found means of disfranchising practically all Southern Negroes. Moreover, the spirit of what was once the Southern Confederacy lives on in U. S. national politics through the continued existence of the "Solid South." If we rule out the border states of Maryland, Kentucky, Tennessee, and Missouri, no former slave state has ever voted for the Republican party except in the year 1928, when Virginia, North Carolina, Florida, and Texas refused to support Al Smith, a Roman Catholic, an antiprohibitionist, and a product of New York City's East Side. In short, peace by destruction, however easy to state as a formula, has proved too difficult in practice, while peace by reconciliation will not be complete until the Solid South disappears. For more than a century, after the Civil War as before it, the Negro question has remained the one permanent issue in American politics.

The permanence of the Civil War's underlying political issue contrasts sharply with the rush of technical developments of which that war marked the beginning. These developments may be summed up as the products of industrialism fostered by usury. The familiar term industrialism we may define as the manufacture of goods by machinery, which presupposes a high level of physical science plus abundant capital available for investment. Although the term usury is only just beginning to become familiar in its traditional sense as opposed to its recent sense of excessive interest, it is so fundamental to modern industrialism and society that its use cannot be avoided. Traditionally, usury means the exaction of any interest on loans not used for economically productive purposes, or the exaction upon economically productive loans of interest so high as to destroy the borrowers' profits. In any society throughout

which reading, writing, and arithmetic are familiar, the common stock of discoveries in physical science tends to increase. In any wealthy society, capital is available to put such discoveries into general, practical use. Ever since the sixteenth-century beginnings of the age of discovery and expansion, the growing tolerance of usury had steadily increased the proportion of the total wealth of the community which flowed into the banking system and could therefore be loaned to support new enterprises. In the early nineteenth century the banking power of England was a chief support of her economic warfare against Napoleon—at the price of a severe subsequent depression which agricultural France did not share. Before 1861 industrialism, enormously stimulated by usury, was already transforming the tools both of peace and war.

The first military effects of industrialism were relative increases in the military power of rich nations as compared with poor nations, together with absolute increases in susceptibility to blockade, in strategic mobility, and in tactical immobility. Both military and civilian manufactures, instead of being decentralized in great numbers of small units as they had been, now tended to concentrate in factories and other large units, the first cost of each one of which was great. Throughout the struggle in the United States the comparatively poor South suffered from an occasional inferiority in infantry weapons and a chronic inferiority in artillery. Railroads and improved navigation had cut the cost of bulk transportation over long distances so that nonindustrialized regions began to depend upon distant centers of production for articles of daily use. Accordingly Southern economy was vulnerable to blockade, because it depended upon exporting cotton to pay for imported European and Northern manufactured goods. Railroads, steam warships, and river steamers—nonmilitary overseas transport being still almost wholly under sail—speeded strategic movement outside of the zone of hostile fire. At the same time the first improvements in weapons made for tactical immobility by increasing the depth and density of the zone of fire. Where, as we have just seen, the old smooth-bore musket could not be relied upon to hit even the largest targets at 200 yards, the new rifles were sighted up to 1,000 yards and were fairly accurate up to 650. Thus the distance which assaulting troops must cover under fire was more than quadrupled.

The resulting tactical change was fundamental. Defensive fire

power was destined to dominate warfare for half a century. Indeed the memory of its effectiveness weighed heavily upon Anglo-French military thought as late as 1940. Beginning with the American Civil War, frontal attacks became so difficult that adequately defended fronts were almost impossible to break. Cavalry charges and close infantry formations became impossible. In order to live under fire, troops found it necessary either to conceal themselves or to entrench, and long before the end of the war entrenchment became habitual on both sides. Thanks to the new strength of a defensive behind field fortifications, Lee's inferior army held out against Grant's superior numbers and artillery from June, '64, to March, '65. Henceforward the only vulnerable parts of a trench system were its flanks.

The blindness of the next generation of European soldiers to the inevitability of these developments has been so chastized by many able pens that today it may require explanation rather than further blame. One reason for this blindness may have been the temporary factor that from '61 to '65 the infantry rifle outranged most of the field artillery pieces then in use, so that artillery could not effectively prepare an assault. In Europe it doubtless seemed more fundamental that the armies of the Civil War were improvised. In the year of Lincoln's first election Prussia transformed her mass army, and not long after Appomattox that army had won lightning victories over both Austria and France.

The new Prussian army was made possible by the new economic conditions and was in part the product of the new moral force of nationalism. Ironically enough, the sweeping invasions originally launched by the internationalist enthusiasm of the French revolutionaries had ended by intensifying national feeling in western Europe and had greatly extended it eastward. In the long run nationalism was destined to turn against hereditary power, since it substituted for a king serving as the bond of union for his various peoples the idea that those who spoke the same language were entitled to a common government. Also the revolutionary currents in thought had not ceased to flow. If by the middle of the nineteenth century in Europe the flaming republicanism of 1793 had faded into a middle-class liberalism intent upon the profits of business, on the other hand the insecurity of the wage earners in the new industries was beginning to turn extreme revolutionaries from the ideal of

political equality toward that of economic equality—theoretically to be achieved by denying the right of ownership. In 1848 a Jew* calling himself Karl Marx—his real name was Mordecai—had published a document known as the Communist Manifesto. Nevertheless the monarchical and aristocratic system set up by the Congress of Vienna was still intact. Throughout most of Europe aristocracy was still vigorous, and in Prussia it was directed by the genius of Bismarck.

This great statesman proposed to use the idea of German nationalism by unifying most of the German-speaking peoples under Prussia. While doing so he would increase industrial wealth and soothe the beginnings of proletarian restlessness by a system of state-supervised insurance which increased the dependence of the industrial laborer upon the government. None of this, however, was intended to work against hereditary power. On the contrary, the king of Prussia was to be emperor of a new state including the majority of the German-speaking people, and the instrument of this achievement was to be a Prussian army under its rigidly aristocratic officers' corps.

For this the Prussian Army must be strengthened. Since the death of the Prussian military reformers of Napoleon's day that army had deteriorated. Universal training had been too slight for efficiency, and the greater part of the huge mass of reservists had not been organized in units forming a part of the regular army but in separate formations of their own, of which the military value was hardly more than that of militia.

The new wealth founded upon industrialism and stimulated by usury made it possible to spend more on preparation for war. By what was for the time a great financial effort, Bismarck made it possible for the Prussian regular army to swallow most of the separate formations. In spite of the increase in population, the annual contingent called up for three years of training had remained at 40,000 ever since Waterloo. Consequently the idea of universal training had grown shadowy. That idea was now to be brought closer to reality by raising the annual contingent to 63,000. At the same

* Throughout this work I have consistently referred to Jewish individuals as Jews, because no student of history who realizes the importance of tradition in human affairs—and particularly the tradition of this ancient people which has had so great an effect—can properly overlook so fundamental a fact.

time the term of service in the reserves of the regular army, which had been two years, was doubled. Thus the aristocratic professional officers' corps, increased by more than half to cope with its larger task of annual training, would in wartime take over the more valuable elements of the reserve and absorb them into the regular army system, leaving the older reservists for second-line duties. Within a few years the army with its reserves, amounting in all to seven annual classes of 63,000 each instead of five classes of 40,000 each, was more than doubled. Like Revolutionary-Napoleonic France, Prussia was now aiming at numbers. Even then universal training was not fully achieved, for in 1860, the year of the Prussian army reforms, the annual class was about 155,000. Nevertheless, the Prussian leaders were making a real effort to use in defense of kingship and aristocracy the massive weapon forged in the revolutionary furnace.

At the same time the mid-nineteenth-century Prussian soldiers set up a novel command and staff system capable of handling their new multitudes. Expansion, they saw, demanded decentralization. Henceforward the commanders of units must make many of their own decisions, like the branch managers of some big business. Under such circumstances effective co-operation necessitated unity of doctrine, and to ensure this the first complete general staff was set up, and systematic training of both staff and high command was actively carried on. The staff particularly interested itself in the use of railways both for troop movement and for supply and in arrangements for rapid and orderly mobilization.

Equipment was also modernized. Breech-loading rifles were issued to the infantry and breech-loading rifled pieces, accurate up to nearly four thousand yards, to most of the Prussian artillery.

Nothing succeeds like success. Machiavelli, whom Irving Babbitt hailed as the most forward-looking man of the modern world, inasmuch as he foretold the political future of Christendom for more than four hundred years after his own death, observed that as long as you succeed, everyone is on your side. The realistic Italian adds, however, that victors should beware of being too much hated.

At first Prussia seemed to have found the secret of rapid and therefore not too expensive triumphs. In 1864, while Grant was hammering on Lee, the new Prussian army had a useful dress rehearsal against little Denmark. Two years later Austria, although

allied with all the little German states, was defeated after only seven weeks. In 1870, within five weeks of the beginning of serious fighting, practically all the French regular army had militarily ceased to exist. The French rallied strenuously, but their improvised formations failed to reverse the verdict. Bismarck used the victory over Austria with an admirable moderation, taking no Austrian territory and contenting himself with asserting Prussian leadership over the north German states. Thus he made it possible for Austria presently to become Prussia's ally. After the defeat of France he would have been satisfied with taking Alsace where the inhabitants, in spite of their long French connection, still speak a Germanic dialect. Unwisely, however, he allowed himself to be overruled by the Prussian soldiers who for strategic reasons insisted upon taking not only Alsace but also the wholly French town and district of Metz. Still, Metz was only a pinpoint on the map of Europe, and had the subsequent policy of the new German empire under Prussia been wise, French resentment might have died down.

Meanwhile every continental European power hastened to copy the new Prussian military machine. Moreover, almost everyone continued to believe that wars between nations using mass armies would be as short as the Prussian victories over imperfectly conscript powers like mid-nineteenth-century Austria and France. It has been well said that military thought seemed hypnotized on the bayonet points of the Austrian defeat at Sadowa and the French surrender at Sedan. A closer analysis would have revealed that in 1870 only one cavalry charge had succeeded. All others had been promptly shot to pieces. In future, therefore, the only mobile arm at the disposal of nineteenth-century commanders might not be able to exploit success by means of pursuit. Even more significantly, every infantry frontal assault had failed. The only successful infantry attacks had been those which had enveloped a hostile flank. In other words, even without the American Civil War habit of entrenchment, defensive fire power remained master of the battlefield. Consequently, if vulnerable flanks could not be found and quickly turned, no prompt strategic decision would be possible.

The successful defense of the Turkish entrenched camp at Plevna against the Russians in 1877 repeated the lesson of the defensive strength of fire power plus entrenchment. For six months the place resisted all assaults, falling only when supplies ran short. Be-

fore the end of the century fire power further increased when the infantry rifle became a magazine rifle. The tactics of the Boer War in South Africa, therefore, repeated the American Civil War pattern with appropriate local variations. The Russo-Japanese campaigns in Manchuria provided an even more impressive demonstration. In them the magazine rifle was beginning to be supplemented by the automatic machine gun. The Japanese only once broke a Russian front, and were then thrown into such confusion by their own effort that if a Russian reserve had been available for counter-attack they would easily have been forced to give up the ground. Almost on the eve of the catastrophe of 1914, still another demonstration of the inviolability of adequately defended fronts was given in the Balkan War. Although the numbers which the great powers were by this time proposing to put into the field were now so great that there would be few—if any—flanks to turn, nevertheless soldiers and military writers almost unanimously continued to believe in a short war of rapid movement.

Another epoch-making invention of the 1890's was the quick-firing field gun fitted with automatic mechanism which absorbed the recoil. Thus the piece remained laid on the same target, upon which a close shot group could be placed as fast as reloading could be done, without the necessity for readjusting the aim. Unmilitary readers will remember how, in any movie showing field artillery in action, the tube or barrel of the piece jumps backward as the shot is fired, then is returned to its original position by the recoil mechanism. This mechanism, together with improvements in artillery projectiles, made field pieces far more formidable. Further, industrialism and usury had now so increased wealth that cannon and their munitions could be enormously multiplied. Henceforward the limiting factor would be the munition available and, in mobile warfare, the power to transport it. Studying reports of the effectiveness of the comparatively old-fashioned Russian and Japanese field guns in Manchuria, and of the slowness which the great numbers present had imposed upon envelopments there, at least one British student of war, now Major General J. F. C. Fuller, recommended a motorized field-artillery ammunition column. Should this be furnished, he predicted that artillery instead of infantry might become the decisive arm, in which case offensives would become attempts to penetrate an enemy's front instead of enveloping his flanks. How

far the new artillery might affect the relative strength of offensives and defensives, of course remained to be seen.

The word "motorized" tells us that a new material factor destined for a great future, the internal combustion engine, had appeared. Before 1914 its most striking result, the airplane, was already beginning to be put to military use. This new device was as yet in its infancy. Militarily it was considered solely as a means of reconnaissance.

In general, the world of 1914 was so different from that of thirty years later that the differences are worth recording. Buoyed up by the illusions bred of centuries of increase in physical science, population, and total wealth, practically everyone believed in "progress." The grosser forms of cruelty and injustice seemed to be retreating to the outskirts of civilization, from whence, so it was hoped, they would in time be effectively rooted out. The advance in physical science and the increase in wealth had been accomplished not only by rapid transit and intercommunication but also by political freedom of international movement. Among European countries only Russia and Turkey required passports of travelers whose personal preference moved them to cross their frontiers, and the world laughed at the czar and the sultan for imposing such old-fashioned restrictions. The movement of money was even freer than that of people; practically everywhere anyone could have gold in exchange for paper money if he liked. In most countries the material conditions of the masses were improving, while individuals of the wealthier classes needed only observe ordinary prudence in order to avoid economic disaster and even increase their fortunes.

There were, to be sure, certain disquieting symptoms. The rich and superficially united world of 1914, whose wealthier classes waltzed to the sensuous and graceful tunes of *The Merry Widow*, was profoundly divided. On the continent of Europe the old regime of dynasties and aristocracies, although outwardly intact except in France, was only a shell. The most active international force, that of the bankers, if not so unpopular as money lenders have usually been throughout history, certainly commanded no strong, general loyalty. The new wealth had not appeased national rivalries. On the contrary, one reason why the great powers were about to hurl their conscript mass armies against each other was that those powers had become strenuously competing economic units. Their competition

took the form of imperialism, in which the desire to domineer over subject peoples might, if successful, increase the wealth of the domineering country. Hardly any nation felt itself strongly attached to any other. The alliances between them were matters of self-interest, usually caused by mutual fear of some third party.

Reaction against the imperialism of the great European powers took the form of nationalism. The idea that any human group, even if only faintly conscious of its unity, had a moral right to govern itself, especially if its members spoke the same language, persisted among the European peoples who were without governments of their own, and even showed signs of spreading to Asia.

Meanwhile the idea of class warfare was beginning to cut across national questions. We have already noted Mordecai-Marx's Communist Manifesto. Up to 1914, however, the attack upon ownership was usually called not communism but socialism. In theory the socialists of those days were internationalists, opposed to armies and war. The connection of ideas was that the officers' corps of European armies were more or less aristocratic, that soldiers could be ordered out as emergency policemen in labor disputes, and that wars were supposed to benefit chiefly the rich. Such was what now seems the distant world of 1914.

The form of the explosion was determined by two gross Prussian errors of policy. After Bismarck's fall from power the inept statesmen who succeeded him reversed his policy by putting Prussianized Germany into diplomatic opposition to Russia. Astonishingly enough, they did so for no fundamental interest of their own. Their motive was only a too active championship of Austria—their one sure ally—against Russian influence in the Balkans. Their action threw czarist Russia into alliance with republican France. Not content with having created this Franco-Russian combination against themselves, and without having first tried to defeat that combination before provoking new enemies, Prussianized Germany next challenged England by building a battle fleet. England had developed after a fashion very different from that of any Continental power. (This will be discussed in more detail later.) Nevertheless, Britain's action forced her into the Continental system by inducing her to join the anti-German group through an informal alliance with France known as a "cordial understanding."

A familiar proverb says that watched pots never boil, and indeed

it was only after several false alarms that the long-watched pot of European rivalries finally boiled over. The resulting catastrophe, however, was far more than a local scalding. It was more like the release of a flood of burning oil which sets fire to inflammable material far and wide. Consequently the disaster was very different from and much worse than anything that had been foreseen.

In analyzing the beginning of that disaster, purely technical military factors are inextricably intertwined with general considerations. In the first place, the mere mechanism of mobilizing the vast conscript hordes was so vast and so complicated that, once it had been set in motion, it was practically impossible to stop it short of war. The most severe critic of Liddell Hart's writing must praise that author's lucid presentation of this point. Obviously war might come, in which case the slightest delay in mobilization might have disastrous military results. Consequently everyone, having begun to mobilize as a purely precautionary measure, presently found himself at war with everyone else.

Next international socialism, upon which some had counted to check the rush into battle, was the first casualty. Everywhere socialists flocked to the colors. The general enthusiasm swept them away. Even in Vienna where no strong nationalism existed, a talented Jew, Maurice Samuel, has recorded with astonishment the solemn exaltation with which the masses greeted the declaration of war.

Presently, however, a wholly new and unforeseen technical factor, trench warfare, began to dominate everything. By mid-October, 1914, not much more than two months after the beginning of serious fighting on the western front, both sides stood in trench lines which were practically continuous from Switzerland to the North Sea. Moreover, to anticipate events, those lines were destined to remain almost stationary for three and a half years.

Since we are interested here in 1914-18 solely as a background to 1939-44, we need not long debate how far the trench deadlock was inevitable. Historically, to use an Irish bull, nothing is inevitable until after it has happened. Had either the French or the German High Commands been a little wiser, or had the Germans been less willing to take up an immobile defensive, events would have taken a different course. Again, had not both sides exhausted their artillery ammunition at about the same time, the universal fatigue of men and horses in September, 1914, might not have been enough to

bring military movement to a halt. It is enough for us to note here that although all the armies of 1914 had trained for mobile warfare and especially for the offensive, nevertheless they found it desirable to fall in with the American Civil War tendency to entrenchment and a postponed decision.

The reasons why the trench deadlock, once it had been established, proved so hard to break are clear enough. Throughout the contest no means of effectively exploiting an initial success were found. Until shortly before the end there were not even hints at what such means might be. In the face of twentieth-century fire power the old means of exploitation, the cavalry charge, was as dead as mutton. Trench systems capable of defying the light field pieces which at first constituted most of the artillery of both sides were easily dug. To beat them down, heavy guns and masses of munitions were needed. There was also the difficult problem of cutting the barbed-wire entanglements. Meanwhile, defensive fire power grew steadily stronger with the increasing use of machine guns. Presently, to permit assaulting infantry to advance without being massacred, the sectors to be attacked had to be so deluged with heavy shell that the whole surface of the ground was broken into craters across which only short and toilsome forward movements could be made. Invariably, therefore, the defenders could bring up reserves ahead of those of the assailants.

Ironically enough, trench warfare, to which both sides had originally consented in order to lessen the strain of mobile warfare upon the soldiers, soon began to impose a new and dreadful form of strain on both the soldiers and the civilian world behind them. The trenches did indeed go a long way toward giving shelter from the fearful fire power of the enemy, while the resulting immobility abolished the fatigue of continual marching, often upon short rations. The immobility also permitted the bringing up of adequate food. On the other hand, that immobility held millions of men, most of them recently civilians, in continual contact with the enemy and subject to his fire, as men had never been held in former wars except in the localized hells known as sieges. The need for both men and shells was insatiable. The endless trenches required huge garrisons and numerous reliefs, while the total casualties mounted steadily under the daily bombardments and catastrophically during active operations. Meanwhile, civilian manpower toiled to pro-

vide food and at the same time to satisfy the constantly rising demand for munitions. The blockaded Central Powers had to find local substitutes for much that they had imported in peace. The Allies, in order to utilize their command of the sea, had to maintain communications reaching around the planet.

All this required vast extensions of governmental authority. War is a communal affair. Since, as its sacrifices mount, people must be either vehemently persuaded or compelled to give up their personal desires, there is need for intensive propaganda. Since the example of stubborn minority resistance, however passive, must not be allowed to spread, governments must be able to tax everyone and to order everyone about to the limit.

A striking by-product of increased governmental authority was the impotence of the bankers. Before 1914 it had often been argued that wars must be short because the great money lenders would soon refuse to lend more money. The multimillionaires of credit were not asked. They were commanded. All the world saw that a financier with a bayonet—potentially—pointed at his belly was only a helpless old man, possibly too fat even to run away.

The various military devices, especially the plane and the tank, which toward the end of the war of 1914–18 seemed to promise some escape from the monstrous trench deadlock, are best discussed in the next chapter because later appreciations of them determined the opening moves of the present war.

For the moment we may be content to remember that the decision of November, 1918, was due to exhaustion, and to note the far-reaching consequences of that exhaustion. To the statistics and estimates of loss we shall return in connection with what is already known about the losses of the present war. In any case, actual losses are only an index of the hardship and grief which go with them. In the body politic as in a living creature, a strain which goes on too long ends in a sudden and violent reaction. Among great masses of men, that which gives way is the collective will—there are always some dregs and remnants of physical resources which, if those masses were sufficiently fanaticized, could still be used in the service of the original cause of the strain. What happens is that masses of individuals refuse to sacrifice themselves further, and then, if the original leaders persist in their policy and go on demanding further sacrifices, those leaders and their cause are swept away.

Toward the end of the war of 1914-18, the wheel of revolution and prolonged mass warfare came full circle. Universal compulsory service, the idea of which had boiled up from the turmoil and terrorism of the French Revolution, ended by provoking revolutions in Russia, Germany, and Austria, and by at least threatening to do so in England and France. In all five of the original belligerents, the existing public order was either destroyed or imperiled. In 1917 the mutinies in the French Army, had not Pétain succeeded in getting them under, might have led anywhere. In November, 1918, the English leaders urged as a reason for not pushing Prussianized Germany too hard that they feared labor strikes and general popular discontent in England itself. In the Austro-Hungarian Empire the whole prewar political structure disappeared, and in Budapest a bloody communist revolution under a Jewish leader had to be forcibly put down. In Prussianized Germany violent revolution ended the war and dethroned not only the imperial Prussian dynasty but also the non-Prussian reigning families of the smaller states. Communist insurrection, again under a Jewish leader, was forcibly smashed in Munich. There was also prolonged street fighting against communists in Berlin. The importance of the political survival of the communist group which seized power in Russia needs no argument.

The opportunity for the original success of Russian communism was wholly furnished by the exhaustion of prolonged mass warfare. In January, 1917, probably not one in a thousand of the peasants who constituted and still constitute the enormous majority of the Russian people had ever heard of Lenin, Trotsky-Braunstein, Mordecai-Marx, communism, socialism, collectivism, or anything of the sort. Government was carried on by a small minority of officials for the benefit of an even smaller ruling class. It is bitterly unjust to say that the czarist regime was fragile. Before cracking, that regime suffered far greater losses than any modern state has ever had to face. Czarist Russia, having little machine industry, was unable to meet the entirely unforeseen demand for guns and shells, which the industrialized powers themselves met with difficulty. Consequently the ill-armed Russian soldiers were like men caught in a meat chopper. Moreover, the czar and his advisers chivalrously, too much so for their own good and perhaps too much so for the good of the world, answered every call for help from their allies. Thus Russia,

between August, 1914, and March, 1917, suffered nearly twice as many military casualties as Germany, more than twice as many as France, and more than three times as many as England, all of whom fought until November, 1918. Given her comparatively primitive organization, the wonder is not that she broke but that she endured so long.

Whatever the merits of the Russian case, when the bell rang for the end of the third round—or, to use a theatrical rather than a prize-fighting metaphor, when the curtain fell upon the third act—of prolonged mass warfare, it did so upon a scene of confused ideas accompanied by civilian massacres, both much like those of the French Revolution, in which mass warfare had begun.

II. STAGE SETTING, 1939

A RMS are the servants of policy. Whether or not people like to fight, in the mass they never fight merely for fun. Always they do so for some political object. In other words, they forcibly try to change group conditions so that the subsequent peace will be more to their liking than the previous peace.

Incidentally, as the great Clausewitz truly says, this means that complaints of "political interference with strategy" are, strictly speaking, nonsense. They are really complaints against the particular policy which the armed men are being used to serve.

The main point, however, is that war and peace are not separate things but complementary parts of political intercourse between human groups. Accordingly, every peace reflects the military situation at the end of the previous war, and every war results from the discontents which developed during the previous peace. Thus the war which began in 1939 developed from the abject failure of the attempted peace settlement of 1919.

The extent of the failure is seen in the headlong speed at which the present war followed its predecessor. The guns began to shoot again and the bombs to drop on September 1, 1939, less than twenty-one years after the Armistice of November 11, 1918.

By contrast, as we saw in the last chapter, Europe had endured no general war and no collision between mass armies for ninety-nine years after 1815, the year of Waterloo and of the Congress of Vienna. Even if we allow generously for good luck between 1871 and 1914, still the difference between ninety-nine and twenty years is startling. How then was the stage so quickly set for renewed slaughter?

It is easy but irrelevant to say that the failure to make a durable peace resulted from the failure of the League of Nations, and especially from the refusal of the United States to join the League. Even without the United States the League members long possessed overwhelming armed strength as compared with Germany. For years a firm Anglo-French combination or even a determined France could have done what it liked. Unfortunately for the League, the world in which it existed was wholly nationalistic. No responsible states-

man of any great power thought of it except as a means of advancing the immediate interest of his own country. Basic Anglo-French disagreements began almost as soon as the treaty was signed. Judging from the general American tendency at that time to take the British rather than the French side, those disagreements would have been even sharper had the United States government continued an active interest in European affairs. The government of France, the great power most interested in maintaining the settlement, was weak. Consequently the League, although it did good work on a number of minor international matters, could do nothing with reference to important political questions. Even when outside aid was offered to it, for instance, when Stimson, then Hoover's secretary of state, offered to join in action against the Japanese doings in Manchuria in 1931, still its members refused to move. Without armed forces of its own, such an international body, as the lucid Frenchman Leon Bourgeois truly told the peace conference of 1919, could be only a shadow.

The impotence of the League was reflected in the atmosphere of its proceedings. A witty and well-known journalist, Gerald W. Johnson, writing in the internationalist *New York Herald Tribune* on December 28, 1944, describes that atmosphere in terms whose substance is confirmed by masses of other witnesses: ". . . at Geneva . . . fantastic stuff . . . held the center of the stage." The League ". . . came to be regarded as a sort of international wailing wall, a place for breast-beating and bawling, rather than for serious business. It used to attract, especially from this country and Great Britain, throngs of worthy but rather desiccated virgins whose intentions were marvelous, but who obviously had no sense; with the result that many people came to believe that no other type frequented the place."

In part the difficulties in the way of making a durable peace in 1919 arose inevitably out of the nature of the previous war. We saw in Chapter I that the peace of 1815 was achieved by methods alien to those of prolonged mass warfare, and that the American peace of 1865 is still defective. The efforts and sacrifices of 1914-18 had been so great that on both sides of the western front every government had felt itself compelled to whip up the fighting spirit of its own people by systematic propaganda intended to show the righteousness of its own cause, together with the satanic wickedness of

its enemies. Thus the masses had come to live in a different world of ideas from that of their former opponents. Next, most of the victors were almost as exhausted as the vanquished. And all the aforesaid victors, either to relieve their necessities or to increase their wealth, were anxious in one way or another to make money out of their former enemies.

Further, most of the masses and the leaders of the victorious countries suffered from serious confusions of thought. They had made war primarily against the Prusso-German military machine and secondarily in the name of democracy, but to each of them "democracy" meant something different. In America it meant government by a powerful but not all-powerful elective monarch, the president, himself subject to constitutional checks and balances. In England it meant an aristocracy in which the masses have for centuries insisted on government by a special class, the gentry, while thinly veiling class government through tepid elections by universal suffrage. In France it meant a corrupt and incompetent parliamentary oligarchy whose members spent most of their time in petty personal squabbles and in attacking the religious and patriotic traditions of their country.

As if the foregoing obstacles to a durable peace were not enough, compared with the statesmen of 1815 those of 1919 were political birds of passage. Except insofar as aristocratic tradition affected English foreign policy, Western leadership was everywhere in the hands of men who had been whirled to the top by a dust storm of ballots and would presently be whirled down again. Thus, except in England and even to some extent there, long-term policy was at the mercy of any temporary gust of opinion.

Still, after making every possible excuse for the politicians who swayed the world in 1919, the enormity of their failure remains. The essence of that failure is that the terms imposed upon Bismarck's Germany were half measures. There are only two possible sorts of peace: reconciliation and destruction. The 1919 terms were neither. They injured and humiliated Prussianized Germany—indeed, as we shall see in a moment, they were needlessly and pointlessly irritating—but they left the slightly amputated framework of Bismarck's new state intact, and therefore potentially a great power.

It is true that the chief result of 1914-18 was not the defeat of Germany but the Russian Revolution. Nevertheless, an apologist

for the so-called statesmen of 1919 could at least make a better defense for the failure to deal effectively with bolshevik Moscow than for the folly with reference to Berlin.

Certainly neither the reconciliation of Prussia to the consequences of her defeat nor, on the other hand, her permanent destruction would have been easy. Nevertheless it is the business of statesmen—for that matter, it is the business of all of us, each in his own sphere—to overcome difficulties. As seen from today, the point is that in 1919 either attempt at a clean-cut solution would at least have been worth while, whereas the half measures which were tried were worthless.

Until much too late, and after the new situation had already hardened, no attempt at reconciliation was made. At the moment no leader on the Allied and American side tried to say in the eighteenth-century manner: "We believed and still believe in the justice of our cause, but we recognize that you Germans believed and still believe in yours." Popular passion ruled, demanding punishment for the wicked Germans, while the latter—thinking themselves virtuous and the Allies wicked—would have suspected any advances made to them. The heaps of dead, the endless processions of wounded, the Allied noncombatants drowned by German submarines, the German noncombatants half-starved by the blockade, all these things would have hindered any efforts to find common ground on which to stand together and shake hands.

Instead the victors went out of their way to irritate their victims without profit to themselves. The treaty said that the disarmament imposed upon Germany was to be the prelude to a general disarmament, which pledge was not kept. Worse yet, the treaty which the German delegates were compelled to sign contained a war-guilt clause. Of course, this forced acknowledgment of German responsibility for the war could not affect the real merits of the case and seemed to the Germans only an insult.

At the opposite end of the scale, no effort was made to destroy Prussianized Germany as a great power. At the time, destruction might have been attempted by the comparatively mild means of political partition. In 1919 Bismarck's Reich was only forty-eight years old. Its hereditary chief magistrate, the Hohenzollern emperor, by invading Belgium had broken a treaty which his ancestor as king of Prussia had signed. For decades the Prusso-German Gen-

eral Staff had deliberately planned that crime against the public law of Europe. Thus the victors of 1919 might have justified themselves for breaking up Bismarck's novel creation. They might have put the Poles back on the frontier of 1772, adding the industrial district of Silesia. They might have put the Danes back on the frontier of 1864, installed a British prince as king of an independent Hanover, and established an independent state in the Catholic Rhineland. Especially they might have restored the German dynasties which had reigned over the smaller German states until November, 1918, and had been traditional centers of opposition to Berlin:

All the foregoing measures would have been, in one way or another, based upon past precedents and therefore opposed to the futuristic political thought of the victors. They would also have diminished Allied hopes for the payment by Germany of the indemnities known as "reparations," i.e., repayment for the physical damage incidental to the war, since a chief means of encouraging the smaller German states to remain separate from Berlin would necessarily have been to give those states economic advantages as compared with what would have been left of Prussia. Nevertheless, the idea of partitioning Germany would at any rate have received some support from German local feeling, especially in Bavaria, and would at least have offered some hope of destroying Prussian leadership over the other Germans.

Incidentally, the ill-starred matter of reparations cut both ways. Not only, as we have just seen, did it discourage the partitioning of Bismarck's Reich; it would also have worked against the idea of giving generous terms to the Reich as a whole—had that idea ever been entertained.

In the end the amputated but undivided Reich was compelled to sign a treaty providing for enormous but unspecified reparations and for a drastic and extremely specific limitation of its armed forces.

To the Germans peace on such terms meant only permanent impotence and increasing poverty. Should they seek to develop overseas trade, they could do so only by competing in markets already pre-empted by others, while in time of war their oceanic shipping would be at the mercy of the superior Western fleets. Now their largely Prussian directing groups saw themselves as the leaders of a great nation. To the west they saw countries like France and Eng-

land with standards of living higher than their own, standards which were upheld by the vast British and French overseas empires. To the east and southeast the Germans saw peoples who were, to their thinking, barbarous and certainly poorer than themselves. Nevertheless, these east European countries, especially the Soviet Union, had natural resources which if developed by German energy and technical efficiency could support greatly increased populations, including many Germans, and could thus raise the standard of living throughout Germany. The east European peoples, however, were unwilling to be exploited for the benefit of Germans.

Almost inevitably, therefore, the leaders of Bismarck's Reich chose to rearm. They had a high military tradition of which they were proud. Their long resistance against a world in arms could be set off against what was to their trained soldiers the inexcusable failure of their first spring in 1914 and the completeness of their final defeat. Indeed, the completeness of that defeat could be veiled by propaganda. Even today, outside of Germany, few people know that the Kaiser's army in November, 1918, had only a possible maximum of two divisions sufficiently rested to counterattack, while probably both of these had long been broken up for replacements. Moreover, a factor in the defeat had been revolutionary, largely Jewish, agitation within Germany, which might perhaps be prevented in future. Finally, the potential recruiting ground and the industrial strength which the Versailles Treaty had left to Berlin promised a fair chance of future military success.

Against German rearmament there were only the paper barriers set up at Versailles. A first step toward breaking these barriers and toward the economic strengthening of the Reich was to whittle down reparations. For this Berlin had allies in the money lenders of the world. Especially a number of financiers located in London were closely connected in various ways with Germany. Incidentally, few international financiers were concerned with French agriculture because it is not a habit of the French peasant to mortgage his land. English policy, therefore, turned against the French, and the weak French government—which had the whole game in its hands, had it continued to play its cards boldly—ended by yielding position after position.

Further strokes of luck for Prussianized Germany were the subsequent gullibility of the financiers of both London and New York

and next the collapse, or rather the suicide, of usury in what was called the world-wide depression. Up to 1914, in spite of the frequent slumps and panics incidental to the usurious credit system, that system could have been defended on the ground that most of the money borrowed was productively used. By 1918, on the other hand, the situation had changed. Vast amounts had been borrowed either by governments from individuals or by one government from another, and had then been spent for mere destruction. Consequently, any interest paid on either sort of war loan was wholly usurious in the purest Aristotelian or medieval sense of the term. Before its notable success in scaling down reparations, the Reich had practically wiped out its internal debt to its own subjects by fantastically inflating its currency. Nevertheless, as soon as the financiers considered reparations sufficiently reduced, from London and still more from New York they began to pour a flood of money into Germany against German promises of high interest. The logic of the whole matter was worthy of bedlam. First the Germans had broken their word by invading Belgium, beginning the use of poison gas, etc. Next the financiers had told everyone that it was an intolerable oppression for these Germans to pay tribute outside of their own borders in the form of reparations. Finally these same financiers proclaimed that these same Germans would certainly continue to pay an external tribute on the aforesaid financiers' loans to them!

Presently, however, all German external payments were halted by the depression. The difficulties of the German banks were in part caused by French financial action: When the rump of German-speaking Austria wished to join the Reich, French deposits were abruptly withdrawn from certain Austrian banks which, in their fall, brought down the German banking system with them. Nevertheless, the principal cause of the depression was fantastically improvident American lending, both domestic and foreign, of which the loans to Germany were only a part. As far as foreign lending was concerned, the United States was economically whipsawed. Its foreign markets were of course insignificant compared with its domestic market, and to protect the latter against the products of cheap European and Asiatic labor it was compelled to keep up a high tariff. That tariff, on the other hand, prevented America's foreign debtors from paying interest on their borrowings in the form

of goods exported to America. While American foreign lending continued, all was well; but when it stopped, foreign payments stopped with it, and then the American price structure, already dangerously inflated by domestic lending, collapsed.

Thus Prussianized Germany, after wiping out her internal debt by inflation and after discrediting the 1919 settlement by ridding herself of reparations, now found herself free from foreign payments on the moneys which she had subsequently borrowed and spent. Moreover, she was now confronted by statesmen in the Western countries who were absorbed in the vain attempt to put the Humpty Dumpty of usurious credit together again. Accordingly Berlin was now free to rearm.

The reader will have noted that the name of Hitler has not yet been mentioned. The reason is that he did not create the strong German desire to rearm, and that without him that process would certainly have gone forward. His predecessor as Reich-chancellor, Heinrich Brüning, was also insistent in the matter, and it is difficult to imagine any head of the Prussianized German state who would not have been.

To the new theory of war according to which the Reich rearmed, we shall return in a moment. Meanwhile we may note what was, as seen from Berlin, the favorable arrangement of the pieces on the European chessboard.

Early in the game there appeared an unexpected ally, Italy. That country had been a secondary but nevertheless important ally of the Western Powers in 1915-18, and had received—unlike the Western Powers—the unconditional surrender of the armies of her immediate enemy, Austria. Although Italians considered the 1919 settlement humiliating to them, Italy had nevertheless remained in the Anglo-French group. Indeed, in 1934 when German or Austrian members of the National Socialist party—of which more in a moment—had staged in Vienna an insurrection intended to unite German-speaking Austria with Prussianized Germany, and had murdered the Austrian chancellor, the Italian government had mobilized so that the union was not achieved. In the following year, however, when Italy, following in the footsteps of nineteenth-century England and France, had enlarged her overseas possessions by conquering Ethiopia, the English and French, working through the League of Nations, had opposed this conquest by a partial and

ineffective blockade known as "sanctions." This farcical half measure, which recalls the half measures previously taken toward Prussianized Germany, threw Italy into the German camp. Moreover, without considerable conquests or some other political change, the economic future of the Italian people was as discouraging as that of the Germans.

The value of Italy to the Germans was considerable. It is true that the united Italian state was a novel creation, dating like Bismarck's Reich from 1871 and without a strong nucleus like Prussia, that it was weak in raw materials and had no great military tradition. Nevertheless, its forty million hard-working people, with their industrial plant and skilled workmanship, counted for something. Considerable efforts had been made to strengthen the national armaments and military spirit. On paper the Italian armed forces and especially the fleet were formidable. Finally, Italy's geographical position in the central Mediterranean was far stronger than that of Austria had been in the last war.

Berlin's comparatively moderate opening moves played skillfully upon the extreme unwillingness of the English and French governments and peoples to fight. No Anglo-French countermoves were made when in 1935 the Reich first reintroduced universal compulsory service, which the 1919 settlement had forbidden, and in the next year marched into the German Rhineland, which that settlement had demilitarized. The strategic advantages of this last move were increased when the Germans began fortifying their western frontier, as the French on their side had long since done. This defensive German effort also affected French opinion, in that it seemed to the French to show that the Germans did not intend to attack them—a calculation which was to prove true only until the Germans were ready to do so.

Having thus strengthened their position in the west, the directing groups in Berlin turned their eyes eastward. In every respect except the strengthening of the vast and populous but distant and dimly seen Soviet Union, the 1919 settlement and its aftermath had played into their hands. From the Mediterranean to the Arctic ran a strip of minor states, all comparatively poor, all strategically weak, and many of them further weakened through internal divisions rubbed raw by the difficulties attending any recently established government. Moreover, the boundaries and even the existence of a number

of these states intensely irritated Soviet Moscow, which had inherited in foreign policy the traditions of the czars.

As early as 1920 the disastrous possibilities of this hodgepodge had been fully set forth by a talented Frenchman, Jacques Bainville, in his book *Les conséquences politiques de la paix* (*The Political Consequences of the Peace*). His title had been intended to recall that of John Maynard Keynes' book *The Economic Consequences of the Peace*, and one notes with melancholy amusement that Bainville's prophetic work was never so much as translated into English, while Keynes' economic acrobatics were so advertised by the bankers that his ephemeral book became a best seller.

No one, however, who had watched the blundering diplomacy of the Reich after Bismarck's fall from power could have anticipated the adroit mixture of boldness and caution with which Berlin—made wise for the moment, but only for the moment, by adversity—took advantage of the Balkanization of so much of Europe. Of the lesser states in the strip just mentioned, the two most likely to offer immediate resistance to Germany were Poland and Czechoslovakia, which were on bad terms with each other so that each, as far as the other was concerned, could be dealt with singly. Of the two, Czechoslovakia was selected as the first victim, and in order to weaken her strategically, it was decided in Berlin to begin by annexing German-speaking Austria.

This was quickly and bloodlessly done in the early months of 1938. The little Austrian state was peaceably minded. It was feeble not only because of its small size but also because its population was almost equally divided between the devout peasants of its countryside and the Marxian socialist workmen of Vienna. The two groups had recently fought a small civil war. Moreover, the Austrian army, having fought side by side with the German in 1914-18, did not even put up the token resistance of which it would have been capable. Consequently the Austrian government, unassisted by Italy on this occasion, felt itself forced to yield.

Although the annexation of Austria was a direct violation of the boundary agreements which were now all that was left of the 1919 settlement, and although the French and British already felt themselves sufficiently menaced to have begun taking certain steps toward their own rearmament, nevertheless this move too was allowed to go unchallenged by the Western Powers. After all, Aus-

tria was German-speaking, so that its union with the majority of the German-speaking peoples might, superficially, seem natural. For Berlin, on the other hand, the annexation marked a long step forward. For the armed forces of the Reich, the incidental military movements served as a large-scale maneuver and an approach march under conditions similar to those of actual war. Also, from the northeastern part of what had been independent Austria, the Czech defensive position could be turned.

The Czechs were a strongly anti-German people, conscript since 1919, possessed of considerable industry, and determined to maintain their independence, but the Czechoslovak state was a monstrosity. A glance at its former boundaries shows a comparatively solid mass in the west, gradually diminishing to the east in a long, narrow, and pointed tail. The mere shape of these eastern frontiers is reported to have provoked Foch to say that such a country was strategically absurd. Worse yet, most of the tail was inhabited by Slovaks who were simple peasants, led by their priests and therefore despised by the anticlerical Czechs, with whom they had no historical connection. In its western part the boundaries of the new and wholly artificial state were those of the proud old kingdom of Bohemia. They were naturally strong mountain ranges which had been strongly fortified, but even this advantage was at least partly offset by the fact that the border districts were inhabited chiefly by German-speaking people, the so-called Sudeten Germans, whom the Czechs and their leaders had bitterly irritated. As if that were not enough, those leaders had also alienated the Czech Agrarian or farmers' party.

Through a combination of the Slovaks, the Sudetens, and the Czech Agrarians, Berlin could have controlled the ramshackle Czechoslovak state without moving a soldier. The rearmed Reich, however, was determined to show its strength and to humiliate the Czechs. In this extremity the one resource of the Czech leaders was to insist that France honor her military alliance with them, and that both France and England honor their obligations under the League of Nations.

The result of this insistence was the conference at Munich, to which the Soviet Union, although a member of the League of Nations, was not invited. There England and France agreed that the Reich should annex the Sudeten Germans and with them the de-

fensible northwestern Czech frontier, thus leaving the Czechs helpless. It has been rumored that when the Czechs threatened to fight at all hazards, the English and French admitted that they might thus be forced into war against the Reich, but told the Czechs that if they won they would then destroy Czechoslovakia as thoroughly as the Reich proposed to do. It has also been said that one reason for the Anglo-French surrender was that the Czechs did not wish to fight.

In the light of subsequent events it is easier to abuse the English and French politicians who made the Munich agreement than to try to understand their conduct. If an Anglo-French war against Germany had already come to seem inevitable, then it might or might not have been better to fight in alliance with the Czechs rather than to wait. In that case the determining factor would have been the English and French calculation as to the speed of their own rearmament relative to the increase in German armament which would be realized in whatever time might be gained by throwing the Czechs to the wolves. If the prospects of an Anglo-French victory were thereby advanced, then in the long run the Czechs too would stand a better chance.

In this fog of guesswork, one thing which stands out is the weakness of the French politicians. To this we shall return in connection with the French disaster of 1940. As to Munich, it is enough to note that the obscure men who in 1938 were temporarily at the head of the French state felt their position to be so uncertain that they dared not do other than follow the English lead. The English politicians, on the other hand, were much more free to act.

If we think of the Munich agreement as an English decision to which the French, in their weakness, feebly consented, then it is reasonable to consider that decision in the light of the whole English policy toward Prussianized Germany from 1919 to 1939. English politicians come and go but the Foreign Office remains. Throughout most of those twenty years, and for some months after Munich, London was far from hostile toward Berlin. On the contrary, the general line of English policy had been pro-German, especially in the capital matter of reparations. Even assuming that Berlin was planning another major war, it was impossible to think that the Germans would deliberately choose to fight on two fronts, and reasonable to suppose that they would prefer to move east

rather than west. It was true that the British themselves had no mass army, while the German recruiting ground was now about double that of the French, but the German mass army had been hurriedly put together, whereas the reputation of the French Army was high and the French fortifications were impressive. The German National Socialists had gained power largely by opposing communism both by propaganda and in street fights. Many Germans had spoken of the splendid things that might be done by German control over the natural resources of the Ukraine, at the same time explaining to all who would listen that the Reich was rearming only in order to have a free hand in eastern Europe. To the English governing class a German attack on the Soviet Union might be no bad thing. Although the threat of communist massacre in England was nonexistent because of the internal unity which is the chief mark of an aristocratic state, still the British gentry could not be expected to like communism as such. Further, the Soviet Union as a territorial unit, a vast, landlocked, and icebound mass, pressing outward toward ice-free water, was necessarily a threat to the British Empire. To the forty-odd millions of Britishers on their little island, empire is not a luxury but a necessity. Without the profits of empire masses of them could not live. Accordingly, to persuade the Germans to march eastward may well have seemed to the British not only possible but desirable.

The Munich agreement, signed late in September, 1938, and intended, at least by the Western Powers, to ensure "peace in our time," was a prelude to disaster. The time thereafter until the fateful day of September 1, 1939, when the Germans invaded Poland, was an obscure, hurried period, throughout which the motives and calculations of the governments concerned are seldom clear. The rush of events is like the course of a canoeist who, paddling down a strange river in a mist, is carried over a waterfall. The current quickens, he hears in front of him the roar of the cataract, he tries to reach shore but is caught in fierce water with cross-currents and boiling eddies, until he plunges over the edge. Afterward—if he lives—he can hardly say just how he was tossed or why he tried this or that split-second maneuver. Probably his last thought, when he saw that he must go over the falls, would be that he had better go over head on instead of being dragged over sideways.

After Munich the first political cross-current came from Berlin.

Hitler had publicly said that the "return" of the Sudeten Germans to the Reich would be his last annexation, but it presently appeared that this was only "campaign oratory," as the late Wendell Willkie said of one of his own speeches. The Germans had their moment of triumph over the now defenseless Czechs. In mid-March, 1939, they marched in and dissolved the Czechoslovak state, setting up a "protectorate" over the remaining Czech territory after a fashion hard to distinguish from outright annexation, establishing Slovakia as a nominally independent puppet state, and handing over to Hungary the tip of what had been the Czechoslovak eastward-pointing tail.

This way of interpreting the pledge of no more German annexations did not go unnoticed in London. There it strengthened those who had all along opposed the idea of encouraging the Germans to go eastward. It showed Berlin to be an incalculable quantity. Moreover, it reinforced the argument that Prussianized Germany, if once firmly established in eastern Europe, say in the Ukraine, would thereafter be immune to the typically British weapon of naval blockade. On this basis it would be better for England to fight while she still had at least one east-European ally. In the early months of '39 England had already begun to sound out both the leaders of the Poles and those of the Soviet Union. It is by no means clear that the English leaders already thought war inevitable. Berlin might be bluffing, and might back down if its bluff were called.

To the German politicians and soldiers, on the other hand, Poland was the next item on their program. They could not reach the Ukraine without crossing Polish territory. We may be morally certain that at some stage of the game they tried to persuade the Poles to take part in their anti-Soviet plans, but exactly what took place is obscure. However, when the English—always with the French in tow—began early in 1939 to urge Warsaw to resist Berlin, the Poles were ready to listen. Nevertheless, after Austria and Czechoslovakia, the German leaders had some reason to believe that their position with regard to Poland offered them a chance for a third bloodless victory. The point at issue, nominally the free city of Danzig, was really the Polish province of Pomorze, egotistically called by the Germans the Polish Corridor. This district had been awarded to the Poles in the 1919 settlement. It had been Polish for centuries until the first partition of Poland in 1772. For what the

point is worth, the Germans' own language maps up to 1914 had showed it as inhabited chiefly by Polish-speaking people. Moreover, the vital point to the Poles was that it gave them access to the sea. Ever since 1919, however, the Germans had loudly shouted that it was an outrage that any part of the territory of so great a people as themselves should be cut off from the rest by a strip of foreign soil —no matter how free their actual movements across the aforesaid strip. It was true that only five years before, they had made a non-aggression treaty with Poland. Amid the general barbarization of which they were among the prime movers and which we shall discuss further at the end of this chapter, that treaty did not matter. If Poland would not join them against the Soviet, she must be coerced. After Munich the Corridor looked like a good stick to beat her with. Probably, thought Berlin, London and Paris would again fail to resist. In any case, if the Poles fought, they could be quickly crushed.

When wooed by the British the Soviets played for time, but the Poles agreed to join in challenging the Reich. In part this Polish decision was based on a mistaken theory of war, as we shall see in the next chapter. What the Polish diplomatic calculations were is not clear. If those calculations were hopeful, they were soon to be disproved. None of the comparatively primitive east-European peoples shrank from the idea of war as the French, the British, and perhaps the German masses did. Nor was any east-European leader as reluctant as the British and French leaders to fight. The Poles are a courageous people, led by men hardened by the endurance of much suffering. Those leaders must have reasoned that even if fearful things were about to befall their unhappy country, it would be better to go down fighting. In the long run, even in this world, honor is sometimes worth a great price.

Consequently, at the end of March, 1939, the British and Polish governments made public a military alliance mutually guaranteeing each other's independence against any threat. It was understood that the French would come in. The British guarantee also included Rumania, but that was comparatively secondary.

This abrupt reversal of Anglo-French policy directly challenged Berlin and at the same time left the delivery of the challenge in Polish hands. If the Poles made concessions, then even yet there might be no war. Indeed, the British and French kept urging the Polish

government to do nothing provocative, especially not to mobilize its army reserves, and the Polish government acted accordingly.

Thus Paris and London might still faintly hope for peace.

How far the German leaders were astonished by the sudden Anglo-French change of front will probably never be known. If, as some have thought possible, there had been an Anglo-German understanding that the Germans were to move against the Soviet, then the masters of the Reich must have been furious at seeing that understanding so promptly scrapped. In any case, Berlin continued its anti-Polish agitation, began to mobilize, and answered the new Anglo-French diplomacy by an equally sharp change of its own. On August 23 the Reich and the Soviet published a mutual non-aggression treaty which, as the immediate future was to show, included a secret agreement partitioning Poland between the two.

The Soviet reasoning is clear. Indeed, Moscow is the one European capital which pursued a direct course, considering solely its own interests irrespective of what any other power might do. The English and French might or might not in the long run prove stronger than the Reich, but at any rate they were neither an immediate threat nor a means of immediate profit. Germany, on the other hand, although a far more immediate threat than the Western Powers, was offering a tangible acquisition: eastern Poland. Whatever the future had in store, the Soviet frontier could be advanced westward by accepting this offer, and then events could be awaited. Moreover, with Berlin nominally a friend and in any event much occupied, further Soviet acquisitions at the expense of little Finland and the still smaller Baltic states would be both easy and safe.

Whether or not the Soviet might have been wiser to try to preserve Poland as a buffer state against the Reich is another matter, on which, perhaps, judgment is not yet possible.

In any case the agreement to partition Poland was the more easily reached because Germans and Russians of all shades of political thought agree in despising the Poles as inferior people whose place is that of subjects.

After the publication of the treaty between Berlin and Moscow, only an immediate and abject Polish surrender could have satisfied the German leaders. When this was not forthcoming, in the small

hours of September 1 the German armed forces crossed the Polish border without the traditional formality of declaring war. Two days later the British and French consequently declared war upon the Reich.

The struggle thus begun was to present certain formidable political novelties. The first of these is the startling new fact of internal division in at least half the countries concerned. This results in part from the mixture of nationalities in most of the new states of eastern Europe, but for the most part it is due to universal and often irreconcilable differences over fundamental morals. The chief difference concerns the idea of ownership, but the milder forms of the quarrel turn upon the question of how far peacetime governments should control the persons and purses of the governed.

The political stage setting of the present war cannot be grasped without understanding both the ferocity and the confusion of the debate over ownership. The one clear point, and the only one which has so far approached solution, is that of property in land. Where much of the cultivable land of a community is held in large estates and is cultivated by wage earners, and where numbers of those wage earners greatly desire to be owners themselves, then there may be acute class friction, as there was in Russia before 1917. This, however, can be cured by agrarian laws. If these are confiscatory they may leave deep scars, as those of the French Revolution have done in France to this day. On the other hand, they need not be confiscatory, and in any case the extension of peasant proprietorship in the French countrysides is the only socially stable construction of which the Revolution can boast. In the Europe of 1939 large estates characterized Poland, Hungary, and northeastern Germany, but the matter is local and does not touch the center of the contemporary social quarrel.

That quarrel goes much deeper. Throughout the cities of the world, and especially in the industrial districts where there has been a chance for great profits, usurious finance unrestrained by law has created vast proletariats, masses of families without roots in the soil, owning no productive property and living solely upon wages. The same usurious finance has created chronic and unnecessary economic insecurity, over and above the chances of bad harvests and

other normal human misfortunes. Consequently the proletarians are constantly threatened with unemployment, and the general insecurity reaches far up into the middle class.

Finally, at the top of the contemporary social pyramid, the commercial rich, the great bankers and manufacturers whose vast wealth overshadows the remnants of the landowning gentry, are neither loved nor feared. They cannot be loved because they represent mere money and are seldom human realities to the mass of their dependents. They cannot be feared because, unlike the medieval rich, they have no private armies but depend for their security upon the laws and police power of the state.

The industrial conflicts tragically multiplied between proletarianism and insecurity have—as yet—bred not so much a desire for ownership as an attempt to deny it. Had the attempt at reform proceeded on so-called distributist lines, had it sought to increase the proportion of families owning productive property, then the resulting quarrels would have taken place within the framework of traditional morals. In other words, reformers intent upon increasing small business, and upon some sort of guild system for those modern industries which must remain large, might have produced a good deal of incidental violence and even crime without rousing universal strife. Thus the squabbles between medieval Christians, however violent, were socially insignificant because fundamental morals, even though often violated in practice, remained unquestioned in theory. Our unhappy time, however, has distorted the demand for justice and reasonable security into an attempt to establish an inhuman equality by means of still more inhuman tyrannies.

Were we primarily concerned here with the modern social quarrel instead of a particular manifestation of that quarrel, i.e., the present war, then we might discuss at some length how such monstrous idols as communism and socialism came to be worshiped. As it is we need note only that they are extensions of the “all men are equal” idea from politics to economics. Individual political rights and liberties having unwisely permitted usury and having thus created insecurity in the midst of wealth, very few noticed the usury but it became a proverb that you can’t eat the Constitution. Communism and its “fellow travelers” then came forward, ignoring usury and saying: Instead of the uneatable stones which consti-

tutional liberties have given you, we will give you the true bread, a real democracy of economic equality.

Further, the age of expansion which produced the large economic unit also produced the foggy ideas of "progress" and "efficiency." Few stopped to ask: Progress toward what? Efficiency for what? Certainly not for human happiness. If, however, the large economic unit, in which labor is divorced from ownership, can be justified, then so much the more can the Bolsheviks be justified. They have merged all the mergers, trustified all the trusts, and called the result the Soviet government.

Unfortunately, in practice that particular form of progress and efficiency necessitates dictatorship. If only the state can own, then individuals and corporations, religious and otherwise, can have no liberties and no measure of independence as against the state, which really means the politicians. From time immemorial people have enjoyed owning things. Owners will often risk their lives in defending their property against robbers. So much the more will they do so against the communist who seeks to rob them in the name of his new idea of right which, should it gain ground, would make theft universal. Of course, communist propaganda takes advantage of the all too human sin of envy by abusing the rich, but in practice small owners who have gained or preserved a little property by intense effort are often its bitterest enemies. When they are clearheaded they feel, even if they do not formulate, Irving Babbitt's epigram: You cannot attack wealth without attacking property, nor property without attacking common honesty. Indeed, voluntary communists, such as monks who have renounced even the possibility of owning anything, will bitterly oppose political communism which, by making the state the sole owner, makes it the universal and all-powerful master.

The communist idea reaches far. For instance, take the family. It has been both wittily and wisely said that civilization was born on the day when the first savage could peaceably inherit his dead father's spears and fish net without having to fight the other males of the tribe, and that civilization fell sick when the first inheritance tax was enacted. Obviously the desire to leave at least a little capital, even spears and a fish net, to one's legitimately born children has helped to build the monogamous family. To check so strong a desire demands dictatorship.

Even the fellow travelers of communism, for instance, the milder leftists who do not deny ownership but merely advocate "social legislation" and high taxation, trend strongly toward despotism because they concentrate so much of the national income and so much authority, especially over the poor, in the hands of the politicians. Consequently those politicians who happen to be in office can so bribe and threaten people that free elections can hardly be held. Nor are free elections compatible with "planning" on any scale. Once undertake a long-term plan and you must carry it through against all opposition; otherwise you would have chaos and bankruptcy so general that no propaganda could conceal it. Now, moderately self-confident people like to do their own planning instead of having it dictated to them, and everyone likes to be free from time to time to change his mind. Consequently to carry through governmental planning over any large part of economic life you must have a state machine strong enough to crush opposition.

In short, communism necessitates state serfdom under a dictator, and even the milder forms of leftism trend in the same direction. Few dictators have seized or wielded absolute power peaceably. Traditional governments, opposed to the absolute power either of an individual or of a majority, and revered like the old kings or the United States and the British constitutions today, are more apt to maintain internal peace.

The alternative to internal peace is civil war. Very logically, therefore, in our leftist age this peculiarly poignant sort of war either blazes or smolders throughout what was once Christendom, with a man's foes those of his own household, brother against brother, and so forth. Ideas are no respecters of boundaries. And differences concerning universal definitions of right and wrong are harder to end than straightforward grabs for material goods. The latter may be settled by compromise, while the only way to kill an idea is to kill all those who openly profess it.

Almost the only thing to be said in favor of civil wars is that they are usually less organized than conflicts between pre-existing governments. That of 1861-65 is an exception, but in general the rule holds. Consequently, if twentieth-century internal quarrels distracted those who wage them from intergovernmental strife, that would be something of a point in their favor. Precisely the contrary is the fact. Wars between governments are less and less limited by

moral restraint. This is true even when the two governments concerned represent only two different shades of leftism. Thus the German National Socialists, compared with the Kaiser's Germany, were strongly leftist. They were a one-party dictatorship, permitting no legal opposition parties. They rigidly limited the power of banks and of millionaires compared with that of the state. They continually harped on the rottenness of bourgeois civilization—whatever that means. True, they recognized private property, they even fostered peasant proprietorship, and they gave a factory owner like Krupp von Bohlen a medal instead of cutting his throat, as the Soviets would have done. Nevertheless, they were by no means wholly unlike the Soviets. But did this considerable community of leftist theory and practice between the National Socialist and the Soviet governments draw the German and Russian peoples together? By no means. On the contrary, as the governments took over the economic life of their peoples, those peoples were more fiercely opposed.

Finally, the most ardent supporter of leftism in general or of communism in particular cannot claim that the increasing strength of these movements has halted a steady drift toward mere criminality and barbarism. Their most sanguine hope is that the present spasm of civil and international war may usher in some great rosy dawn of universal peace. The actual trend is the other way. Take, for instance, the official conduct of Prussia and Prussianized Germany. In 1870 Bismarck provoked a war with France by forging a telegram, but did not violate Belgian neutrality. In 1914 the Germans did violate that neutrality, but Bismarck's successor, von Bethman-Hollweg, admitted in the German parliament that the violation was a crime. In the present war the Germans have repeatedly violated neutral states, and in most cases their only verbal defense for these acts was like that of the rapist who protested that, had he not deflowered his very youthful victim, someone else would eventually have done so.

All this, together with the universal attacks on noncombatants by air bombing and the constant mutual accusations of breaking the previously accepted rules of war, makes it appear that, whether or not our world is wickeder than that of our ancestors, it is certainly stupider. In formulating those rules, honor walked hand in hand with the modest ability to count beyond two. At any time any fool

could gain a temporary advantage by cruel or base conduct. Many did so. Nevertheless, within Christendom most people had the sense to see that—unless one could destroy all possible enemies at one blow, which was obviously unlikely—frightfulness did not pay because it was apt to recoil. If you tortured or killed prisoners, you might suffer for it if taken prisoner. In other words, your nastiness only made the war nastier for everyone, yourself included. When Shakespeare's Macbeth says:

. . . we but teach
Bloody instructions, which being taught return
To plague the inventor: . . .

he tells truth not only about war in general but also about the manner of conducting it.

Experience, however, makes no impression on the barbarian. He, as Santayana truly says, repeats the human experiment without even knowing that he repeats it.

Before 1914, in the childhood of all middle-aged people now alive, Christendom prided itself on having "progressed" beyond wars of religion. Students of history used to read of such wars as of something either horribly fascinating or merely disgusting, but in any event worlds away from themselves. Today, if we have not yet had wars of religion, we certainly have wars of doctrine. The Spanish Civil War is a good example. Even wars between nations begin to look like religious wars because our fierce doctrinal debates blur nationalism. Like the religious passions of the Reformation era, our passion for forcibly remaking society is no respecter of frontiers. A man is just as much robbed or murdered when these crimes are committed by his own countrymen as if they had been the work of foreigners. Consequently when any political, economic, and ethical scheme tending in these directions is adopted by a government, that scheme intensely attracts or repels large groups in the neighboring countries. The sincere passions of these groups can be used, again as in the Reformation era, by cynical and ambitious leaders. Therefore, the complex nightmare of sixteenth-century treacheries is repeated by our "fifth columns." Over much of the world political murder is again commonplace. If we seek a precedent for the increasing habit of forcibly dragging masses of people from their

homes and settling them in distant countries, we must go back further yet, to the Old Testament days of the Assyrians and such like. As to civil massacres, the massacre of Saint Bartholomew has been far exceeded since 1917 in Russia and by other subsequent happenings. Torture is becoming more and more common.

In one capital respect, however, we who are living near the end of the great age of expansion differ largely from our sixteenth-century ancestors with whom that age began. They conquered distance, discovering half of the coasts of the known world within a single long lifetime, whereas we try to conquer time. In other words, our age, as Henry Adams noted even before 1914, is an age of acceleration. Thus when we fight we can devastate great stretches of the planet with a rapidity which the cruel captains of the Religious Wars would have hopelessly envied. And then, insofar as the mere technique of engineering and construction goes, we can rebuild almost overnight, after a fashion of which our forefathers could not have dreamed.

To speak of construction brings up another element of our twentieth-century savagery in which we differ from the Renaissance-Reformation time. Amid all the nastiness of that day, at least architecture and the arts spoke of dignity and beauty. As we look at that part of the artistic and literary stage setting of 1939 which calls itself most "modern," we see only the rectangular half-wittedness of "modern" architecture and the calculated hideousness of "modern" sculpture and painting. In short, as Lewis Mumford puts it: We see barbarism and dissolution. Just how this strangely apt aesthetic accompaniment to our wholesale brutalities is to be interpreted, the reader may judge.

At all events, from the blundering half measures of 1919 to the returning tide of barbarism, such were indeed the stage settings of 1939.

III. THE OPPOSING WAR PLANS

THE original belligerents of September, 1939, began hostilities according to three separate war plans: the German, the Anglo-French, and the Polish. As a glance at the map shows, and for other reasons as we shall see in a moment, it would have been difficult for the English and French to have co-ordinated their action with that of the Poles, and in fact no co-ordination was attempted.

The discontinuity of military experiment compels all peacetime war plans to depend upon theory. Not theory in the high sense of general principles which fully explain a mass of facts completely or at least abundantly known, but in the lesser sense of principles based as far as possible upon the known facts and in part upon new factors not yet fully tested but certain to make the next war more or less different from the last. Now, theory has become an unpopular word. Indeed, it is loosely used by fools as a synonym for falsehood, although obviously a thing cannot be true in theory if it be false in practice. Nevertheless, the officers who have the technically fascinating but often thankless job of making war plans must always combine knowledge with guesswork, most of all today when physical science is constantly creating new military instruments. Even for past military experience planners must rely either upon the limited personal memories of individuals or upon the interpretations by historians of the corpse of the past. Hence, incidentally, the peculiar importance of military history, for historians are like embalmers or undertakers who might, if they chose, lay out the dead in a number of different postures.

Neglecting the 1939 Polish plan for the moment, the widely different German and Anglo-French plans had one fundamental thing in common. Both were determined not to repeat the mass massacres of 1914-18. This massive and incontrovertible fact has shaped the entire course of events. Except in Asia and in eastern Europe, every government and every people, insofar as the peoples were articulate, entered the war with the firm intention of waging it without the fearful sacrifices of the last great struggle. Upon Prussianized Germany, which under the strange leadership of the Austrian-born ex-corporal launched the colossal military adventure,

even vaster sacrifices, in the beginning doubtless unforeseen, have been in the long run forcibly imposed. Nor have the other powers been spared. Nevertheless, the unteachableness of mankind, although vast, is not absolute, and the original realization that 1914-18 was a mutual disaster is perhaps a foundation on which the future can build.

Returning to the war plans of September, 1939, that of the English and French was based upon an exaggerated estimate of the importance of sea power and of the strength of the defensive on land. Since the overrunning of France would mean total disaster for that country and the threat of it for England, no matter what might be happening at sea, we may begin with their land theory.

In judging Anglo-French conduct at this stage, we must distinguish clearly between the attitude forced upon them by circumstances and the errors which they might have avoided, had their theory been closer to the facts.

A defensive attitude was largely forced upon them by the decisive circumstance that England had no mass army. Throughout most of the fluid political situation of the middle 1930's, when the English and French leaders had to consider a war in which their two countries alone without east-European allies might have to face Germany, the numbers of the populations involved—some 40,000,000 English and about the same number of French against nearly 70,000,000 Germans—would have had about an equal military potential, as far as mere numbers went, had recruitment and armament been similar. In that case the slight numerical advantage of the English and French might have canceled the disadvantage of coalition warfare against the united enemy. Even then the addition of the approximately 40,000,000 Italians would have made the European Axis superior in the proportion of about three to two. In '39, always excluding Poland, the fact that England had only slowly and tentatively begun to raise a mass army by compulsory service in May of that year left the French conscripts almost alone against a potential recruiting ground of about double their numbers in the enlarged Reich, and against odds of three to one should the Italians come in. The British Expeditionary Force in France in '39 and '40 never exceeded ten divisions.

French opinion was vividly conscious of the English return to their pre-1914 little volunteer army. The popular French author

Céline, who achieved popularity without the aid of organized publicity—inasmuch as the majority of reviewers damned him—wrote in '38 a best seller, *Bagatelles pour un massacre* (*Trifles for a Massacre*), in which he said: "The English? They will need a year in which to recruit and organize, and another year to train." French people might well ask: And what will happen to us in the meantime? With this in mind, long before Berlin had openly denounced the military restrictions of the 1919 treaty, the French had massively fortified their frontier bordering the Reich by means of the so-called Maginot Line.

So far so good, but at this point doubtful theory came in. Neither the British nor French Command acted upon a realization of the offensive possibilities of the new military instruments made possible by the internal combustion engine, that is, the plane and the tank. Except for a handful of planes intended solely for reconnaissance, the armies of 1914 had been composed of the traditional arms, infantry, cavalry, and artillery, and in 1918 the new arms, in spite of their obvious importance and rapidly growing power, were still thought of by senior officers as appendices tacked on to the military team but not yet full members of that team. In spite of the startling penetration of the German front by the British tanks at Cambrai, most of the later battles had been fought chiefly by infantry and old-fashioned artillery. Foch had not tried to defeat the Germans by maneuver. He had slowly worn them down by multiple attacks of no great depth, nearly all delivered after tremendous shelling, and none pushed beyond effective artillery support. The planes and tanks of '39 were still comparatively fragile. Even today their improved successors can be knocked out by single projectiles of sufficient size. The French and British Commands, therefore, conceived even of a successful offensive as slowly inching forward against formidable defensive fire power, and losing masses of men in the process. Moreover, tanks and planes were undeniably expensive, and both France and England, with their international banking systems and overseas economies, were sensitive to financial considerations.

In France still another thought was undoubtedly present: the low French birth rate, which increased the proportion of old people in the total French population and correspondingly decreased the proportion of young men of military age.

Finally, the incompetence and corruption of the Third Republic had now so divided the nation that the fiery patriotism traditional to the French was weakened. The so-called Popular Front had brought the country to the edge of civil war. For perhaps the first time in history, educated soldiers were beginning to say that the French Army did not have the spirit to attack.

The mere existence of the Maginot Line has been blamed for this French state of mind, but without reason. Fortifications need by no means imply defensive mindedness, still less want of spirit. Those great conquerors, the ancient Romans, were also the greatest fortifiers in history, and the same was true of the medieval French crusading knights and of the armies of Louis XIV. In the present case plenty of experienced French soldiers publicly insisted that fortifications are useful only as pivots of maneuver and springboards for counterattacks. The French High Command remained wedded to the precedents of the last war, and the diseases of the political regime were at last infecting the nation.

In England the political situation was much better but the general misunderstanding of military theory even worse than in France. Although the aristocratic framework of the state was becoming somewhat worm-eaten with the achievement of power by a certain number of queer people, nevertheless the authority of government was unquestioned, and the patriotism both of the gentry and of the masses remained strong and united.

On the other hand, the results of English participation in the war of 1914-18 had profoundly dissatisfied the country. Whereas in the old wars Britain had acted chiefly by means of her fleet, had raised only small professional armies, and had done most of her land fighting with the blood of Continental allies whom she had financially subsidized, in her first war against Germany she had felt compelled to raise a compulsory-service mass army which had suffered heavily. The English, hardly any of whom had experienced land warfare for nearly three centuries, were not only shocked and grieved at their share of the butcher's bill which they had had to pay for the victory over the Kaiser, but also shaken with astonishment that the apparently secure world in which they had always lived could breed such horrors. Their revulsion of feeling was by no means cowardice, as the future was unmistakably to show, but they were disposed to listen to anyone in authority who—if at last they

must fight—would suggest some means whereby they might wage a war of limited liability.

Among those who urged them to do so, the most widely heard voice was that of the lively and persuasive Captain B. H. Liddell Hart. Few military writers have wielded greater influence than he in the years just before '39, or have theorized more boldly, and few have seen their theories so promptly demolished. He might indeed point to certain qualifications and saving clauses in his writings, but he himself, when sharply criticizing the great Clausewitz in his book *The Ghost of Napoleon*, has insisted that writers should be judged not on qualifying clauses but on the general drift of their work and the chief impressions of that work upon their readers.

Judged by this standard of his own making, his main idea was that the modern defensive was normally so strong as to make offensives unprofitable, with the corollary that the British Army should not try to win against Germany by means of land offensives. Through his articles and books, especially *Europe in Arms* and *The Defense of Britain*, he eloquently preached this doctrine to a large public throughout the English-speaking countries. Also he became a trusted adviser of Hore-Belisha, the energetic Jewish company promoter who was, in the English terminology so strange to Americans, "Secretary of State for War" for some years before the German attack on Poland.

The total failure of Liddell Hart's forecasts concerning the Italian campaign in Ethiopia and the Spanish Civil War discouraged that lucid writer not at all. In his book *Europe in Arms*, written shortly before the decisive victory of the Spanish Nationalists, he prophesied that they would soon exhaust themselves by their own offensive efforts. His theory of the war with Germany, even after the German campaign in Poland, may be summed up by quoting from one of his articles in the London *Sunday Express*: "... while modern weapons give an aggressor a greater advantage than ever against a small or primitive country which lacks such equipment, the defense has become master of the attack where two well-equipped modern forces meet. Our chief risk of losing the war lies in trying to 'win the war'—by pursuing the mirage of decisive victory on the battlefield." That the English and French were ill equipped to meet the Germans he did not suggest.

The difficulties of military forecasting are great enough to make any fair-minded man judge others with the utmost charity. On the other hand, this particular error—which, as we have seen, was by no means confined to any one man—was so important and the analysis of it is so instructive that we must examine it a little.

A strong case could at that time be made for the defensive theory of which Liddell Hart was the best-known English-speaking exponent. One of the most familiar of the many true sayings of the master of military philosophers, Clausewitz, whose sound principles have survived misinterpretation by many lesser men, is that "the defensive is the stronger form of war." The occasional, pre-1914 denials of this truth by eminent French and Prussian theorists may be dismissed, all the more since we are dealing with an opposite exaggeration.

Throughout the whole history of war, the reasons for the greater strength of the defense, in the French phrase, have leaped to the eyes. The defender can choose his ground and usually can find a position more or less strong by nature. Within the time available to him he also can strengthen that position by the art of fortification. The assailant, on the other hand, must take upon himself the effort and risk of moving forward under fire in order to reach the defender's position. When in motion he must expose himself, while the defender is more or less sheltered, and when in motion he will seldom if ever be able to fire effectively. All told, therefore, a smaller force on the defensive has usually been able to preserve itself from military destruction at the hands of a larger attacking force of about equal military quality and armament for a considerable time, and within that time the defenders can often inflict heavier losses than they themselves suffer.

Against offensives of the old-fashioned sort these immemorial advantages of the defense have been strengthened by modern armament and modern conditions in general. Today, an adequately equipped army delivers fire of such range, accuracy, and volume that the offensive power of the unarmored infantryman has fallen toward zero. Any number of such assailants are so much meat for machine guns. Artillery still retains some offensive power, but the volume of shellfire sufficient to smother a well-prepared defensive was so great in 1914-18 as to tear up the whole surface of the

ground and thereby check offensive movement. It remained to be seen to what extent an army of 1939 could penetrate the defended front of a powerful opponent. The enterprise did not seem easy.

While modern fire power made a front difficult to break, other modern conditions made the flanks difficult and sometimes impossible to turn. The numerous populations and high total wealth of the world, the development of modern transportation by land and sea, especially the nation worship which gives modern governments an unprecedented control over the bodies and purses of their subjects, all combine to permit the raising of enormous armies. In the west of Europe, these armies can spread themselves across whole theaters of war, extending their flanks until those flanks rest upon neutral boundaries—which cannot always be violated with impunity—or upon natural obstacles such as the sea. In '39, on the western front, it would be as if two hostile groups met head-on in a narrow corridor. Finally, modern constructive power permits the erection of vast fortified systems like the Maginot and the German Siegfried Lines.

In a word, the defense always has been the stronger form of war, and has proved itself peculiarly strong in our own time.

This, however, is not the end of the argument but only the beginning of it, because a pure defensive, indefinitely maintained, can seldom accomplish more than the postponement of defeat. Such an attitude would reduce Anglo-French offensive possibilities to blockade and air warfare, both of which will presently be discussed. To return briefly to generalized theory, Clausewitz, in the same breath as that in which he acknowledged the greater strength of the defensive, went on to say that this form of war is essentially negative. Consequently, the reflective Prussian continued: "Whoever feels himself strong enough to make use of the weaker form, that is of the offensive, can aim at a greater object." If your enemy attacks you, then the defensive may enable you to achieve the positive result of inflicting upon him losses heavier than those which you yourself suffer, but if he will not oblige you by attacking, then you must either attack him or do nothing. At the time, a certain highly intelligent British officer when privately asked by an important politician what he thought of the defensive theory is said to have replied: "You can't say that one form of war in itself is more worth adopting than the other. Both offensive and defensive are only tools

in your tool bag. The choice between them depends on what you are trying to do."

This brings us to the concrete case to which Liddell Hart intended his defensive theory to apply; that is, to the military policy or grand strategy of England in the case of a war waged in alliance with France against Germany.

Should the English and French indefinitely renounce land offensives, they could attack only from the air or by naval blockade. What has since been called "strategic bombing," in plain words almost always bombing of civilians, they were unwilling to begin. Among other considerations, the German Air Force was greatly superior in numbers. Consequently, the one offensive weapon which they proposed to use was naval blockade. Now blockade, whether by sea or land, is indeed an offensive weapon. In Clausewitzian phrase, it is an indirect "seizing of the enemy's resources," which he must continually consume, because it prevents his replenishing those resources from outside of the blockaded area. Insofar as a blockade is naval, it is a function of sea power. Accordingly, the particular blockade which the English and French of '39 planned to impose upon the Germans is best considered in connection with sea power in general.

In wartime sea power seeks to gain or at least to dispute "command of the sea." The existence of the submarine and the airplane has suggested that today a better phrase would be "command of the surface." How air power has modified the relation between land and sea power is a question to which we shall return. In any case, to the extent that "command" is achieved, it permits its possessor to use overseas communications himself and to deny them to his enemies.

Obviously, such command is an enormous asset in a long war. Insofar as it is complete, it restricts the war-making ability of one's enemy to such resources as exist within the territory which he controls, plus trade with his neighboring neutrals—which trade can be drastically limited by rationing the overseas imports of those neutrals. The United States somewhat limited Mexican imports during 1861–65, and the Allies rationed the neutrals bordering upon Germany in 1914–18. Meanwhile he who commands the sea can draw upon the whole world outside of the area which he blockades. He can trade with all the maritime neutrals of the world to the extent

of his own resources, and he can use the highway of the sea for military purposes. Defensively, he can also restrict the military movements of his enemy to the territories accessible by land.

The three previous bouts of prolonged mass warfare—the Revolutionary-Napoleonic conflicts, the American Civil War, and the war of 1914–18—have been decided in favor of the side which possessed superior sea power, and the present war seems in a fair way to be similarly decided. Accordingly, there are now and there were in 1939 plenty of people who believed in sea power as a sure passport to final victory. Had this been necessarily true, then the Anglo-French war plan would have been sound. With the superior English and French wealth and resources, they had only to keep up their blockade in order to defeat Germany.

In actuality, this idea had no standing in military history and no relation to the realities of '39. None of the first three rounds of mass warfare had been finally decided by superior navies alone. All had ended in decisions won by land victories. By itself, naval blockade seems never to have won any war.

For the popular overemphasis on sea power we must in part blame Mahan, and still more the exaggerations of his injudicious followers. Mahan won his well-deserved fame because before him hardly anyone had broadly analyzed the great military effect of sea power. Many men had shown that they understood it. Soon after 1600, Francis Bacon had written: "He that commands the sea is at great liberty, for he can take as much or as little of the war as he will; whereas those that be strongest by land are many times nevertheless in great straits." Shakespeare, who wielded so different a style from Bacon, had sung of England as:

This fortress built by nature for herself . . .
This precious stone set in the silver sea,
Which serves it in the office of a wall,
Or as a moat defensive to a house,
Against the envy of less happier lands.

By the middle of the seventeenth century oceanic trade, although still largely concerned with luxuries—as indeed it remained until well into the nineteenth century—had already become so important a source of wealth that the English poet Marvell, celebrating a vic-

tory of Cromwell's Admiral Blake over a Spanish treasure fleet, could write:

Oh would those treasures which both Indies have
Were buried in as large and deep a grave;
War's chief support with them would buried be,
And the land owe her peace unto the sea.

One might continue at some length in the same vein throughout the last three centuries of English literature. Nevertheless, no one before Mahan had systematically painted the broad picture. He reminded the English of a chief reason for their greatness, and they were duly impressed. Not a few Germans, beginning with Kaiser Wilhelm II, fell into step behind him, and certain Americans, led by Admiral Luce and Theodore Roosevelt. Military thought rushed violently into the near vacuum which he had exposed.

What Mahan actually gave was by no means a sound, general analysis of war. It was a one-sided study of particular—one might almost say peculiar—sorts of war. Up to 1914, English sea power had won only under two conditions: Either the sole prize had been the control of valuable but undeveloped overseas territories easily dominated by sea command, strategic islands one might call them, or else England's naval opponents had also been compelled to great land efforts which she did not have to imitate.

Defensively, Mahan was right in saying that sea power must win since it can indefinitely keep large armies from crossing seas too broad to be commanded by land-based weapons. To this extent his famous passage about the English fleet, "those storm-beaten ships which the Grand Army never saw," denying to Napoleon the mastery of the world by forbidding him to cross the Channel, is as true as when it was written. Apparent exceptions via air power mean only that airplanes extend much further from the land the zone in which land-based weapons can normally dominate sea-based ones. A purely defensive success, however, as we have seen, can lead only to a war of attrition turning upon blockade and counterblockade.

Mahan considered only one great war in which English sea power, after long defensive resistance to land power controlling a strategically self-supporting land mass, began to turn the scale against land power: the war against Napoleon. Here what hap-

pened was that the Corsican's wanton invasion of Spain supplied England's inferior land power with a theater in which it could act with advantage, as we saw in Chapter I. In Napoleonic Spain and Portugal the little British army based upon the sea, although wholly incapable of defeating the mass of Napoleon's armies, was nevertheless able to put a continuing and appreciable military strain upon the French.

Mahan's analysis of Napoleon's motive for invading first Spain and then Russia leads us straight to his central error of exaggerating the effect of sea power. Starting from the undoubted truth that the economic stress resulting from the long struggle between the Corsican's land power and England's sea power annoyed continental Europe, Mahan asserted that the English navy "forced" the Emperor into the unwise invasions of Spain and Russia which finally destroyed him. The passage from *Influence of Sea Power on the French Revolution and Empire* is as follows: "Thus it was that the sea power of Great Britain, defying his [Napoleon's] efforts otherwise, forced him into the field of its own choosing, lured him, the great exemplar of concentrated effort, to scatter his forces and led him along a path which at last gave no choice except retreat in discomfiture or advance to certain ruin."

The operative word is "forced," but the idea, which was always doubtful, has weakened still further with the advance of historical science since Mahan's day. Businessmen in Napoleonic Europe were indeed inconvenienced by the British blockade, but business was then socially overshadowed by monarchs and nobles so that it politically counted for less than it does today. Mahan exaggerated the strain under which France labored. The French admiral Castex, no great admirer of the Corsican, has collected much material showing that on the whole the economic condition of the blockaded French Empire, if not brilliant, was certainly comfortable. Moreover, such strain as existed was two-edged. England's then unrivaled banking power could not have held out indefinitely. Spain was Napoleon's inefficient but faithful ally. It is hard to see how he possibly could have been "forced" to invade her as he wantonly did. Mahan's idea is still weaker in the case of Russia, which everyone knew to be a tough nut to crack.

Erase the word "forced" and the imaginary omnipotence of sea

power disappears. Not navies but armies supported by navies destroyed Napoleonic France. Federal armies supported by a navy broke the Confederacy in 1865. Not Jellicoe, Beatty, and Simms but Foch, Pershing, and Haig, with the admirals behind them, defeated Wilhelm II.

And even if sea power alone had won all these wars, that would by no means have proved that it must win under the conditions of 1939.

How far the Anglo-French plan of '39 may have trusted to luck by depending upon political events uncontrollable by the governments of those countries, we do not know. It was obviously possible, at long last, that either the Soviet Union or the United States might come in, in which case the whole picture would change to Berlin's disadvantage. Considered not on the basis of what might be hoped, but upon what was actually known in London and Paris, the plan offered few prospects of success. It underrated the power of German science to obtain workable substitutes for such non-German products as would be cut off by blockade, and also the effectiveness of the prolonged and systematic German preparations against being blockaded. It assumed that the heavy defensive burden peculiar to superior sea power could be successfully borne.

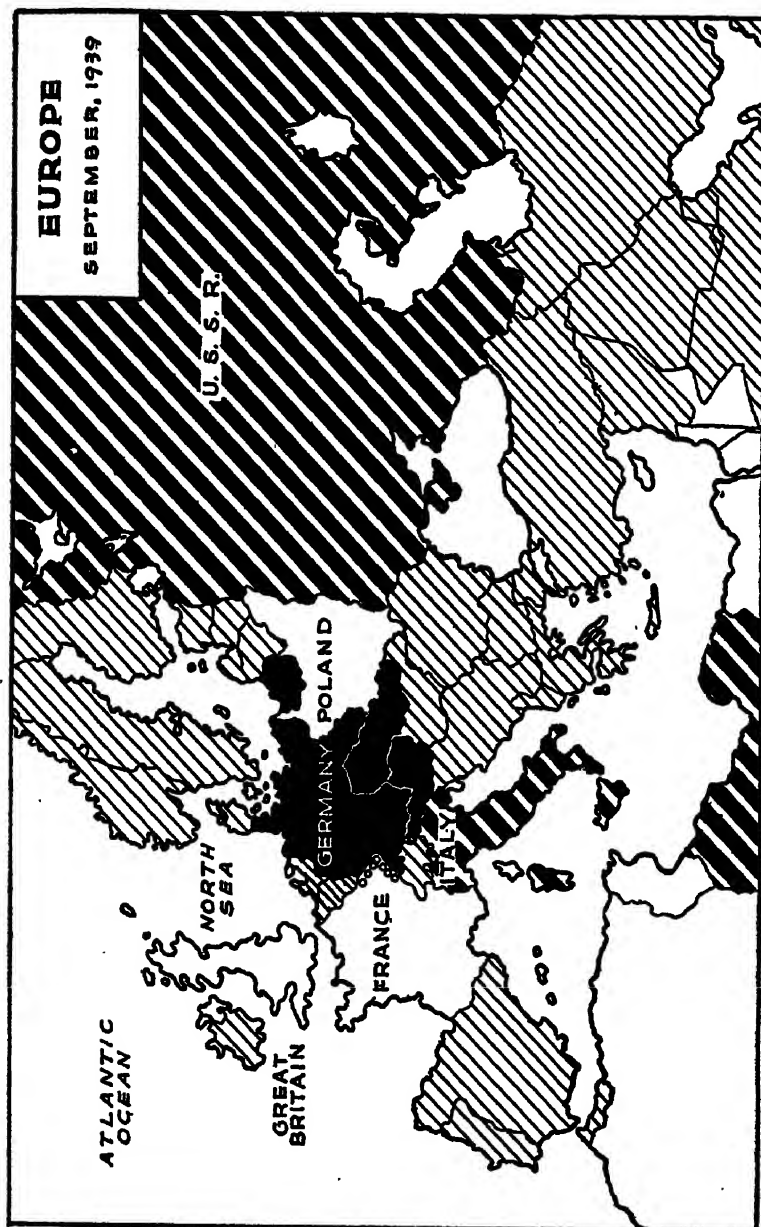
That superiority at sea should, in a sense, penalize itself seems paradoxical. But the fact is that throughout no war known to naval history has the stronger party's command of the sea been wholly perfect, while that party has always had vast defensive responsibilities from which his weaker opponent is free. When in general the command of the sea is no longer being disputed, then the weaker side has no sea-borne trade to protect, while in practice he has always, even in the old wars, been able to get single warships and even small squadrons to sea in order to prey upon the sea-borne trade of the stronger side. In the old wars he whose battle fleets were no longer being challenged on the high seas was never defeated by commerce destroying. He blockaded the hostile battle fleets as closely as he could, he grouped his merchant ships into convoys and escorted them as strongly as circumstances seemed to demand, and thus won through, but only after heavy losses and intense effort on his part. Often he found it desirable to try to block with obstructions the entrances of the ports from which the commerce destroy-

ers of the weaker side used to sail, but usually his one sure means of putting such ports definitely out of action was to land and occupy them.

Since Napoleon's time England had become dependent upon imported food, while on the other hand the submarine and the plane, by their possibilities of tridimensional movement in order to escape detection and combat, had greatly increased the possibilities of attack upon trade by the weaker side. In 1917 German submarines alone without help from planes had nearly compelled an English surrender. The corner had only just been turned by American reinforcements in light surface craft. The future tactical balance of attack upon or defense of trade promised to swing in accordance with the effectiveness of new devices and new scientific instruments on either side.

Finally, the Anglo-French 1939 plan was risky because it ignored the paramount importance of superior strength by land. After all, man is a land animal. All his voyages, both by sea and in the air, begin from the land, all successful ones end on land, and all are undertaken in order to affect conditions on land. Fleets can only blockade, whereas armies can either blockade or assault. Success at sea, as we have just seen, is hardly ever absolute, while on land it often is absolute. If an army can capture or destroy the bases from which a fleet operates, then that fleet will be helpless. Further, land-based weapons tend to dominate ship-based ones because ships can be sunk. Consequently—and here the plane comes in—every increase in the range of weapons tends to push farther out from the shore the zone within which ships hostile to the possessor of the land cannot operate.

In any event, the strategic outline of the war which was about to begin would follow, with up-to-date variations, the immemorial pattern of wars between the land and the sea. Sea power would try to imprison land power within a ring. Land power would try to break that ring, and in proportion to its success in doing so it would become better able to contend with sea power on the latter's own element. While the territorial *status quo* obtained, Germany would remain boxed in the North Sea by the superior Anglo-French fleets, but any German territorial gains which would let the German navy out of that sea would vastly alter the naval position in Germany's favor. At best, even if the territorial situation remained as



it was, sea power would be able to act only slowly, whereas any land success would have its effect at once.

The weakness of the Anglo-French combination was that it gave hostages to land power. France was part of the Continent, and even England tended to become so strategically because of the plane. Consequently, as far as France was concerned and to a considerable extent as regarding England also, their joint war plan stood or fell with their ability to hold fast on land. Should Liddell Hart, widely publicized as England's "greatest military expert," prove mistaken as to their ability to do so, then the result would be total disaster for France and the threat of it for England.

Had not the English and French governments and High Commands fully believed in their defensive theory of land warfare, their conduct during the opening phase of the present war would have been very different. Should Germany not concentrate most of her force against Poland, the numerical inferiority of the Western Powers must in any case have compelled them to take up a defensive attitude. But unless they had believed that defensive lines would remain formidable as in 1914-18, the English would have feverishly pushed the training and equipment of their mass army. Both French and English would have hastily multiplied antitank and antiaircraft guns for defense, and planes and tanks for counter-attack. Towns and centers of communication behind the front in France would have been strongly fortified with all-around defenses, in order to impede the Germans should they break through.

None of these things were done. The organization and still more the equipment of the English mass army went forward in leisurely fashion without, as far as we know, any protest from the French.

Thus the English and French began their war with an unfavorable political situation and a war plan which promised little.

The German plan differed from that of the Western Allies in everything except the intention to win without the ruinous losses of 1914-18. Whereas in the doubtful state of France the chief Allied assets were sea power and the Maginot Line, Germany's asset was the Prussian tradition of her army.

She had indeed set up a separate air force, the *Luftwaffe*, but this and her navy were combined with the army under a single highest command known as that of the *Wehrmacht*, that is, the "armed

force," which in practice was dominated by the high prestige of the army. Below the highest level of command, operations were unified by a system of "task forces." A single commander, chosen from that one of the three services which was to play the chief part, was charged with a given task, and to him were assigned certain units of such services as were to join in accomplishing that task. In most cases the logical task-force commander was an army general, but the system was intended to make all work together as one, and it seems to have done so. Especially air effort was to be co-ordinated with that on the ground.

With her army, closely supported by her air force, Germany proposed to destroy, in a military sense, the armies of her enemies. This objective followed the practice of Napoleon and the theory of Clausewitz, together with practically all military thought from Waterloo to 1914. Napoleon, suffering from the political handicaps noted in Chapter I, had indeed ended by exhausting France after his enemies had learned his strategic and tactical game. Clausewitz, ending his days in a Europe sick of slaughter, would certainly have qualified his praise of extreme efforts and sacrifices even more than he did, had he fully imagined the topsy-turvy world of our own day with its mutually suicidal struggles. Reaction against subsequent caricatures of his doctrine had inspired many protests since 1914. Of these one of the most eloquent had been that of the strange man T. E. Lawrence, who was called Lawrence of Arabia, when in his *Seven Pillars of Wisdom* he denounced the "exterminative" wars of the nineteenth-century theorists, making himself in his own words "a clown, leering after them where they with Foch, band-master at their head went drumming down the old road of . . . blood into the house of Clausewitz."

Nevertheless, the military destruction of the hostile, organized forces—provided always that you do not come too near to destroying yourself in accomplishing it—is the supreme objective in war, for then you have killed the cat. Afterward you do what you like. When you have destroyed your enemy's battle fleets you command the sea, subject only to his sporadic attacks. When you have destroyed his armies you occupy his country until his people come to consider you as their legitimate sovereign, or until you yourself tire of holding them down.

The German Staff, with much reason, as events were to prove, be-

lieved that they could cheaply conquer the armies opposing them. Their new military technique had developed logically from the experience of the last war, with its campaigns serving chiefly as signposts indicating what should be avoided in the future. That war had been won by exhaustion. After more than ten million soldiers and probably an even larger number of civilians had been killed, after most of the planet had gone bankrupt and social order throughout the vast Russian Empire had broken down, Germany had finally collapsed. Obviously the strategy which had produced such a result was worthless because it was so costly that its victories were almost as bad as defeats. In 1914, before the western front had hardened into trench warfare, the Germans had had a chance to win the war at the Marne. Four years later, in the spring of 1918, a new offensive tactic had given them another chance. Neither opportunity had been grasped, and in the interval the opposing masses of infantry and artillery had battered laboriously and crudely against each other.

Everywhere military thinkers had come to much the same conclusion as had the Western man in the street: This must not happen again. The talented German general von Seeckt, who organized the little Versailles Treaty *Reichswehr* for the inglorious and short-lived Weimar Republic, in his book *Thoughts of a Soldier*, the English translation of which was published in 1926, had summed up the lesson of the last war thus:

To what military success did this universal levy in mass . . . lead? In spite of every effort the war did not end with the decisive destruction of the enemy on the field of battle; for the most part it resolved itself into a series of exhausting struggles for position until, before an immense superiority of force, the springs which fed the resistance of one of the combatants, the sources of its personnel, its materiel, and finally of its morale dried up, although they were not exhausted. Has the victor really rejoiced in his victory? Do the results of the war bear any just relation to the sacrifice of national strength? . . . The soldier must ask himself whether these giant armies can even be manoeuvred in accordance with a strategy that seeks a decision, and whether it is possible for any future war between . . . masses to end otherwise than in indecisive rigidity. . . .

Perhaps the principle of the levy in mass, of the nation in arms, has outlived its usefulness. . . . Mass becomes immobile; it cannot

manoeuvre and . . . cannot win victories, it can only crush by sheer weight.

. . .

[And again] The soldier, who seeks a decision in mobility, rapidity and inspiration, has grave doubts whether armed masses can ever secure a decision, and whether nations in arms can avoid finishing in trenches once more.

. . .

[On the other hand] Anyone who has the smallest idea what technical knowledge, what numerous instruments, operated only by carefully trained experts, what highly disciplined mental faculties are needed for the effective control of modern artillery fire, must admit that these essential qualities cannot be taken for granted with men whose training has been brief and superficial . . . such men . . . against a small number of practical technicians . . . are "cannon fodder" in the worst sense of the term.

Unlike the man in the street, however, German military thinkers did not interpret "This must not happen again" as meaning that strife would cease. Correctly judging that no stable or lasting peace was being established, they diligently sought for more rational because more profitable ways of waging war.

They found the germ of their new methods in certain developments of the latter part of 1914-18, especially those due to the iron horse, that is, the internal combustion engine. American locomotives had been so called, but the term better fitted this newer engine so much more powerful in relation to its weight. In a plane it became a Pegasus, a winged horse which could fly in the air. Fitted with a caterpillar tread it could beat down or climb over most ground obstacles. When armored the tractor became a tank off which infantry rifle and machine-gun bullets rattled like peas. Toward the end of the last war planes had had a real though limited effect upon ground operations, while the success of tanks had been startling. At Cambrai in 1917 British tanks, acting on plans prepared by the high talent of J. F. C. Fuller, then chief of staff, Tank Corps, and now a retired major general, had broken clear through the German defenses in an attack which if adequately supported would have rolled up the whole western front.

Independently of mechanization, the new German offensive tactic of 1917 and '18 had achieved surprise and made maneuver possi-

ble not by means of new weapons but by high training of the assaulting troops. First, the approach march had been made in the greatest secrecy, the troops being moved by night so as not to be seen from the air; all gun and wagon wheels and horses' hoofs had been muffled, and all troops with their transport had remained under cover of woods or roofs during the day. Second, the bombardment before the assault had been short and without preliminary ranging, most of the shells being filled with temporary gases intended to hinder the defenders without barring the advance of the attackers. Third, the actual attack had been made by "infiltration"; each assaulting unit had gone ahead as fast and as far as it could, leaving to the higher command the job of protecting its flanks and rear by means of reserves. Thus in case of success the remaining "islands of resistance" had been surrounded and finally swamped as by water flowing through a break in a dam. Without high training secrecy could not have been achieved, the suddenly opened bombardment could not have been accurate, and the infiltrating attack would have been ineffective. Obviously such procedure contained valuable lessons for the future.

We may be certain that the German Staff, considering all these things and seeking constantly for some means of victory which would not be too costly in lives, asked themselves how the infantry "infiltrating attack" of 1917-18 might be vastly multiplied by the iron horse. The high military dividends paid by pushing small groups of good soldiers into the hostile rear areas, even though those groups were lightly armed, may well have suggested air-borne landings still farther behind the hostile ground fronts. The usefulness of sharply pointed, deep salients, thrust far into an enemy's defensive organization, might be enormously magnified by mechanized ground forces acting under cover of air supremacy. In short, the infantry-artillery tactic which had won such brilliant initial success at Caporetto in November, 1917, in Picardy on March 21, 1918, in Flanders in April, 1918, and across the Chemin des Dames to the Marne in May and June, 1918, might not only be imitated by the iron horse but also extended by the new mobility, exploiting the initial success, so that all previous tactical ideas would have to be remade from top to bottom.

The idea of relying so largely on mechanization was not adopted by the German High Command without long and bitter debate.

General J. F. C. Fuller has written that the dismissal in 1938 of both the German commander in chief and the minister of war, which was publicly supposed to have resulted from a quarrel turning upon the marriage of one of them to a woman of insufficient social rank, was really caused by differences of opinion as to the value of mechanized tactics. As late as 1940 so able a military writer as the anti-Nazi German doctor Herbert Rosinski published in the American edition of his *German Army* the statement that the Reich was unlikely to attempt lightning war. He continued: "... the present generation of German military leaders begins to think . . . in terms of a more restricted mobility, of long-drawn frontal battles, proceeding over many weeks and decided—by a prolonged struggle . . . until he [the enemy] . . . collapses. . . . Therefore . . . all actions demanding swift movement on the battlefield . . . are questioned; so too are the chances of a sudden decisive blow by strong mechanized forces or air attacks." Thus believing, this eminent military scholar, in a despatch telegraphed from London to the *New York Times* on April 29, 1940, after the successful invasions of Poland and Norway and less than a fortnight before the launching of the great German offensive in the west, wrote that "... Germany had no hope of smashing her way to victory by a decisive, full-strength attack on the Western Front once she had lost the chance of doing so in the first few months of the war. . . ." Rosinski was taking the alternative tactic of the German High Command for its principal tactic.

The fact was that the Germans, in spite of their confidence in the plane-tank team, were far from staking everything upon it. On the contrary, their army is best described as a plane-tank-infantry-artillery team of which no part was neglected. Their antitank and anti-aircraft guns were more numerous than those of any other army. A number of their infantry units were of first-rate military quality, capable of astonishing feats in the capital point of marching. Thirty miles a day for several days seems to have been fairly common, and what that means only those know who have tried something of the kind on their own feet and without military encumbrances. They had also been careful to provide themselves with abundant heavy artillery, 150- and 210-millimeter howitzers, together with 105, 150, and 240 long-range guns. Thus they prepared themselves for trench warfare and siege work.

Nevertheless, American officers who studied the German Army's preparations for '39 found them chiefly intent upon the offensive in mobile warfare. Toward this were directed their reliance on the initiative and intelligent co-operation of unit commanders and their perpetual insistence upon the closest teamwork between all arms. In their General Staff School nine "offensive problems" were given out for each defensive one. The jungle of elaborate written orders which had sprouted everywhere during the trench warfare of 1914-18 was wholly swept away. Even division commanders were taught to issue them seldom and then very briefly. Every subordinate commander was constantly thrown on his own initiative, both as to how he should execute the brief directives of his immediate chief and how to act independently. The idea was that all hands should co-operate sensibly and promptly in any situation, much like an American championship football team in a broken field. Infantry regiments were habitually combined in "combat teams" with field-artillery battalions and detachments of what the American Army would call combat engineers. As to artillery, this extended the seventeenth- and eighteenth-century practice of incorporating guns into infantry units, which had been revived in the "accompanying guns" of 1917-18. The part to be played by the engineers was enlarged to include assistance in attacking fortifications by the use of demolition charges. Most important of all, every tactical exercise, even those of small units, emphasized infantry-artillery teamwork with both tanks and aircraft. To harness together an elephant, a giraffe, a race horse, and a yoke of oxen and to persuade them all to pull together would be simple in comparison.

All this required high training, and every possible device was used to save the time of officers and men. Army administration and paper work were simplified and largely left to civilians so that officers might concentrate on training and study. Many of the newly drafted men had served in the *Arbeitsdienst* or Labor Service, an organization somewhat like our old C.C.C., where they had been physically hardened, disciplined, and taught marching and simple drill. In the same way much of the preliminary training of military airmen was given in the *Lufthansa*, the civilian air-transport service.

In point of organization, no less than nine mechanized *Panzer Divisionen*, i.e., armored divisions, were organized as compared with forty-two active peacetime infantry divisions. Each armored

division had about 14,000 men and 3,000 motor vehicles. Each was divided into three groups: a reconnaissance group of 50 armored cars and a company of motorcycle infantry, an attacking group of about 450 tanks, and a ground-holding group consisting of a motorized infantry brigade and a regiment of field artillery. The armored divisions required a high proportion of technical troops, mechanics for field repair work, signal men, and engineers for quick repair of roads and bridges—somewhat as the armored knight of former centuries, also a highly specialized fighting man, needed at least one squire and one groom to care for his armor, his spare horse, etc. The personnel of these mechanized divisions were picked men.

In general the German armored forces were to be used like the heavy cavalry of a hundred years ago. They were seldom expected to attack a hostile front adequately furnished with artillery, for no tank is proof against sufficiently heavy cannon shot. Incidentally, there is a catch in the phrase "sufficiently heavy." The German tanks were to punch through weak spots in the enemy's front or to turn his flanks, and then to disorganize his rear and attack his command posts. Thus they were to play a prominent part in the effort to bewilder and confuse their opponents, the experience of 1914-18 having taught that such procedure would be easier and more profitable than mere hammering.

In all this the German soldiers intelligently borrowed and adapted more than they originated. For instance, in England General J. F. C. ("Boney") Fuller had worked out in a number of books the tactics of tanks and their probable influence upon future warfare more thoroughly than anyone else. Among other things, he had predicted that planes and tanks would jointly transform "linear warfare" with regular fronts and inviolate rear areas into "area warfare" or "naval warfare on land" with the forces of the two sides intermingled. Somewhat later in France Charles de Gaulle, then a colonel, had written on similar lines. Toward these two prophets, however, the High Commands of their respective countries had turned deaf ears. Nowhere had the actual equipment and training of the armed forces gone so far in the direction of what may be called the new warfare as in Germany.

At the same time, the German government was planning to supplement its energetic and characteristically detailed preparations in the purely military sphere with an equally thorough—but in the

long run a doubtful—political strategy. Within Germany Hitler, that strange Austrian-born man of the people, and his advisers had followed a moderately leftist social policy, allowing the ownership of private property while strictly subjugating its possessors to the despotic state; but in dealing with foreigners they were morally prepared to go to great lengths. Very possibly, with a gambler's lack of foresight, they might have tried to justify themselves by saying that they were only "applying the logic of total war." They were in the fullest Prussian tradition when they proposed to repeat Frederick the Great's trick of achieving political surprise by the simple method of attacking without a declaration of war. The practice has not been confined to Prussia: In 1904 the Japanese sank two Russian cruisers by "political surprise"—a little foretaste of Pearl Harbor. The Japanese, however, have never been supposed to be a part of what was once the moral unity of Christendom.

In addition, the National Socialist government of Prussianized Germany systematically organized fifth columns favorable to itself wherever it could. Citizens of other countries but of German descent and such non-German men as sympathized, for one reason or another, with National Socialist ideas were enlisted and assigned to particular tasks.

The old-fashioned name for attacking without declaring war and for organizing fifth columns is treachery.

Even in our tired and cynical age old-fashioned, traditional morals are violated at some risk. Numbers of people still resent such violation, and are sometimes able to make their resentment felt.

While organizing treachery abroad, the German National Socialists took great pains to forestall revolt or agitation at home. Their determination to have no recurrence of the defeatist agitation of the autumn of 1918 may partly explain their harsh treatment of the Jews. No effective revolt within Germany took place.

On the other hand, there was a weakness at the heart of National Socialist Germany. Its government was not legitimate but insurrectionary. Although Hitler and his party had originally achieved power with such measure of legitimacy as the wretched Weimar Republic could give, they had thrown even this away by forcibly suppressing all opposition parties. Even in the chaotic 1930's and '40's, with most of the governments of continental Europe more or

less insurrectionary, still this meant something. It saddled Hitler with the burden of Napoleon. In other words, it condemned him to go on dazzling his own people and forbade him to stand still.

What the German people thought of their insurrectionary government and of the coming war is difficult to say. Collectively Germans are docile, especially toward a strong master. They do not think of war as a horrible inversion of natural order but as a divinely appointed ordeal by battle which is the supreme test of a people's worth. Without conquest they could see nothing ahead but increasing national poverty. Nevertheless, the Germans, like other men, cannot help learning something from experience. All the middle-aged and old people of 1939 could remember 1918. Although they did not shrink from war like the Western peoples, there are signs that they were not enthusiastic as in 1914. As late as 1932, only three years before the restoration of universal compulsory service, the official publishing house of the *Reichswehr* had published a book by A. Caspari, *Wirtschafts-Strategie und Kriegsführung* (*Economic Strategy and the Conduct of War*), which argued strongly against such an army. The German people, so Caspari had contended, were now so infected with Marxian social ideas that they could no longer be depended upon as soldiers. There is a story that in August, 1939, at a grand review in Berlin the atmosphere was so gloomy that a high official said: "This is not 1914. It is 1917." There is also Hitler's famous boast, repeatedly made in speeches celebrating his occupations of Austria, Czechoslovakia, and Memel: "I have enlarged the Reich without shedding the blood of a single German soldier." Whatever the implications of these words, they are certainly not a hymn to sacrifice. Nor is there any reason to believe that the sacrificial zeal of 1914 was present in the Germany of '39. Although events were to prove that for one reason or another the Germans were prepared to endure much, nevertheless, as we shall see in Chapter VI, the lack of military enthusiasm among many of them may have affected the German conduct of the war.

In September, 1939, however, all possible flaws in the German war plan were still admirably concealed. The astonishing adventurers in control of the Prussian administrative and military machine proposed to strike first in one, then in another direction,

always against more or less isolated peoples, disorganizing and surprising such of their opponents and neutral neighbors as seemed best to them. First, as we have seen, they would attack Poland.

Meanwhile, they would set up a counterblockade against the British and French, using chiefly submarines but also long-range planes and such raiding surface ships as could slip out of the North Sea into the Atlantic. The feebleness of these German means would at least in part be compensated by the number and importance of their objectives—especially the ships in which the English must import much if not most of their food, in peacetime two billion dollars' worth per year.

The Polish war plan need not long detain us. Strategically, as we shall see in the next chapter, except insofar as it placed about three-quarters of the thirty Polish active infantry-artillery divisions close to the German border, unprotected either by natural obstacles or by strong fortifications, it did not affect events. Tactically, the Poles seem to have misread the lessons of the Spanish Civil War, especially as to the probable future effectiveness of air support and of tanks. Partly on this account and partly because of national poverty, most of their equipment was old-fashioned. In regard to horsed cavalry they had gone back even beyond 1914, organizing the equivalent of seven cavalry divisions to their thirty of infantry. In this they were undoubtedly influenced by the very real results obtained by their mounted men in 1920 against the then ill-armed and ill-organized Red Army. It has even been said that a mounted charge had decided that campaign in their favor. The error lay in assuming that defensive fire power would again fall so low as to permit them to repeat so extraordinary an achievement. In line with the belief in horsed cavalry but in contrast to the offensive limitations of old-fashioned equipment, the Poles had trained chiefly for the offensive in mobile warfare. Their tanks and planes were neither numerous nor up to date.

Nevertheless, within the limits of their old-fashioned equipment, the Poles were far from contemptible opponents. They are a brave people, and so patriotic that they had succeeded in maintaining their national consciousness without a national government from 1795 to 1919. Their population of about 35,000,000, although we shall see in the next chapter that it contained elements of weakness,

was appreciable even when compared with the new Germany's 80,000,000. They had been conscript for nearly twenty years, the Reich for only five. The Polish company officers and active soldiers were well trained. Alone of the belligerents of '39, Poland showed a spirit at the end of August that had in it something of the exaltation everywhere noted in 1914.

PART TWO

DECISIONS

IV. THE GERMAN LIGHTNING VICTORIES

FROM September 1, 1939, to June 22, 1940, nearly ten months, there followed a succession of German lightning victories culminating with a tremendous crescendo in the surrender of France. These victories, a sort of honeymoon of blitzkrieg, marked the most sudden and sweeping tactical transformation in the recorded history of war. Only the early successes of cannon in battering medieval fortifications designed without reference to such attack could be even remotely compared with them, and Europe had known gunpowder for generations before the castles began to go over like ninepins, while the iron horse, the internal combustion engine, had never propelled an air or ground fighting vehicle in actual combat before 1914. The amazing rapidity of these early German triumphs was hardly stranger than their bloodlessness. The victors' losses were trivial, while those killed or wounded on the defeated side were vastly outnumbered by those taken prisoner. In contrast to 1914-18, the new warfare seemed fantastic.

Three thousand years ago the first war horses whose hoofs still thunder from the book of Job astonished in like fashion the Mediterranean lands. Some five hundred years later the appearance of European men, Greeks in metal armor in Egypt, and four hundred years ago the armored riders of Cortes and Pizarro in Mexico and Peru were locally epoch making. The transformation which we now consider took place only yesterday, as history counts time, and overturned military thought throughout the world.

The first victim of mechanized lightning war was Poland. That

chivalric but unhappy country has no natural frontier on the west. Its access to the Baltic was only a narrow strip of land about 100 miles long, from 50 to 25 miles wide, and flanked on both sides by Prussian territory. Roughly speaking and disregarding this strip, Poland was an almost equilateral triangle about 550 miles—not far from the airline distance from Chicago to Harrisburg or from Richmond to Portland, Maine—on a side, with its western corner forming a salient thrust deeply into Germany. From that corner the German-Polish frontier ran northeastward for somewhat more than 300 air miles—about the air distance from Chicago to Cleveland or from Pittsburgh to New York—and no less than 500 air miles southeastward—about the distance from New York to Toledo, Ohio, or from Washington to Montreal. About half of this southern boundary was not German territory but was strategically German because the satisfaction of the Slovaks at their release by German hands from oppression by the hated Czechs had led this little people to ally itself with the Germans against the Poles, thus extending to the east the southern part of the Polish-German frontier and further outflanking Poland on the south. Thus, if the mass of the German armies was left free to attack the Poles, the outnumbered forces of the latter would from the first be threatened with envelopment on both flanks. The only natural defense line behind which they might fight to advantage was that formed by the San River to its confluence with the Vistula, then down that river to the point north of Warsaw where it is joined by the Narew, and finally up the Narew. Moreover, the necessity for a retreat to this line would in itself be a catastrophe, for a withdrawal more than two hundred air miles from the tip of the salient—say from Chicago to Cincinnati or from New York to Boston—would mean the loss of a third of the national territory, including the richest section and much of the part most unanimously Polish in language and feeling.

From our summary of the Anglo-French plan in Chapter III, the reader will have understood that most of the German forces would indeed be free to attack Poland. This, together with the other disadvantages of the Poles, would have made their defeat overwhelmingly probable, even assuming an equal standard of armament. They would have been rolled up from both flanks in a gigantic double envelopment, a Cannae, such as von Schlieffen had planned against France at the beginning of our century.

The significance of the German campaign in Poland is therefore not so much its result as its speed. Within eight days the mass of the Polish Army was almost hopelessly compromised. Within little more than three weeks from the initial stroke, that army, perhaps the fourth and certainly the fifth largest in Europe, had been virtually destroyed. Only the garrisons of certain obviously doomed fortresses prolonged a hopeless resistance. The difference in time between this lightning Cannae and the slower one which might have been expected in a campaign fought with old-fashioned equipment was due chiefly to the German planes and tanks.

In assigning this credit to the plane-tank team, the German fifth column and the extreme boldness of the German strategic deployment must not be forgotten. About 4 per cent of the population of Poland were Germans, who counted for more than their numerical strength because most of them lived in the western provinces which the Germans would first invade, and because of their high average of wealth and culture as compared with the peasants who made up the Polish-speaking majority. Like other Germans, they despised the Poles, and they had been carefully organized from Berlin. Their chief use was in furnishing information to the German forces.

Knowledge or justified suspicion on the part of their more primitive Polish neighbors as to the part which these fifth columnists were about to play may have given some ground for the charges of Polish atrocities against Germans which, so Neville Henderson, then British ambassador in Berlin, has recorded, Hitler passionately cited in order to justify the coming German aggression. If so, then the least that can be said is that the punishment about to be inflicted upon millions was disproportionately large compared with such isolated crimes.

Further, the order of battle of the German forces which were to take advantage of the preliminary work done by the fifth column was notable for its high degree of "economy of force." In a military sense this means that first things should come first and secondaries a long way after. When planning a war you have certain objects which you wish to accomplish and certain tasks which are forced upon you. To achieve economy of force you must choose one principal objective and concentrate upon it all your available strength, except for the barest minimum which you assign to the other tasks which you cannot wholly neglect. In other words, to increase your

chances of gaining your main object you must boldly decide to run risks, often grave risks, everywhere else. War is the province of risk and danger, and fortune favors the brave. Nothing venture, nothing have. To try to be strong everywhere is to be weak everywhere—a certain road to defeat.

I here turn aside for a moment to note a complementary truth or corollary to the first, which is that you cannot profitably use more than so many units on a given front or in an area without getting in your own way. Overcrowd a front and your people cannot effectively use their weapons. Overcrowd an area and you cause traffic jams on the communications within that area. The U. S. Army will long remember the traffic jams which halted the Argonne offensive after its first success. As the early twentieth-century armies expanded until their continuous frontage spanned whole theaters of war, it was one of the great achievements of the pre-1914 German staff that they had developed linear tactics and strategy. They had learned to calculate closely how many men per meter front could be usefully employed either offensively or defensively. Of course, the same principle, differently applied, holds good for the new arms. Consequently, we must modify the former maxim as to economy of force, "You cannot be too strong at the decisive point," by saying: "You cannot be too strong up to the limit of the force which you can effectively use in the theater which contains your principal objective." To linear strategy we shall return in connection with the French conduct of operations in May, 1940.

In September, '39, the Germans achieved a double economy of force. For the moment their object was the destruction of Poland, but they were compelled to guard their western border against France, not to speak of the necessity of coastal and antiaircraft defense. Although France initially mobilized 111 divisions, while the Germans themselves could begin by mustering only something between 120 and 130, nevertheless they judged that the French, what with political disintegration and defensive military theorizing, would not seriously attack. Accordingly they gambled all out on their judgment, realizing their first and greatest economy of force by holding their western fortifications, otherwise known as the Siegfried or Limes Line, with a fraction of their available troops. On September 1, they mobilized from 140 to 150 divisions, of which not many more than 90 would be available during the first month.

Of this 90, 9 were active armored divisions and 42 infantry, 13 of the latter being fully motorized. Perhaps all, certainly all but one of the 9 active armored divisions stood in the east, together with 31 of the 42 active infantry divisions—including all 13 motorized divisions—and from 25 to 30 of the reserve infantry divisions. On the fortified western front of nearly two hundred miles against the 111 French divisions stood only 11 German active divisions, including perhaps one armored division and from 9 to 14 reserve infantry divisions. The essential thing was that all or nearly all of the active armored force and nearly three-quarters of the active infantry divisions were to be thrown against the Poles, for the Germans intended to do by far the greater part of the real military work with the elite minority of their army as von Seeckt had prescribed. In the air only about 2,500 planes, perhaps a third of the German available total, were assigned to the eastern theater, but these 2,500 outnumbered the largely obsolescent Polish planes by more than three to one. Against eight or nine German tank brigades, the Poles had only one, and many of their machines were obsolescent.

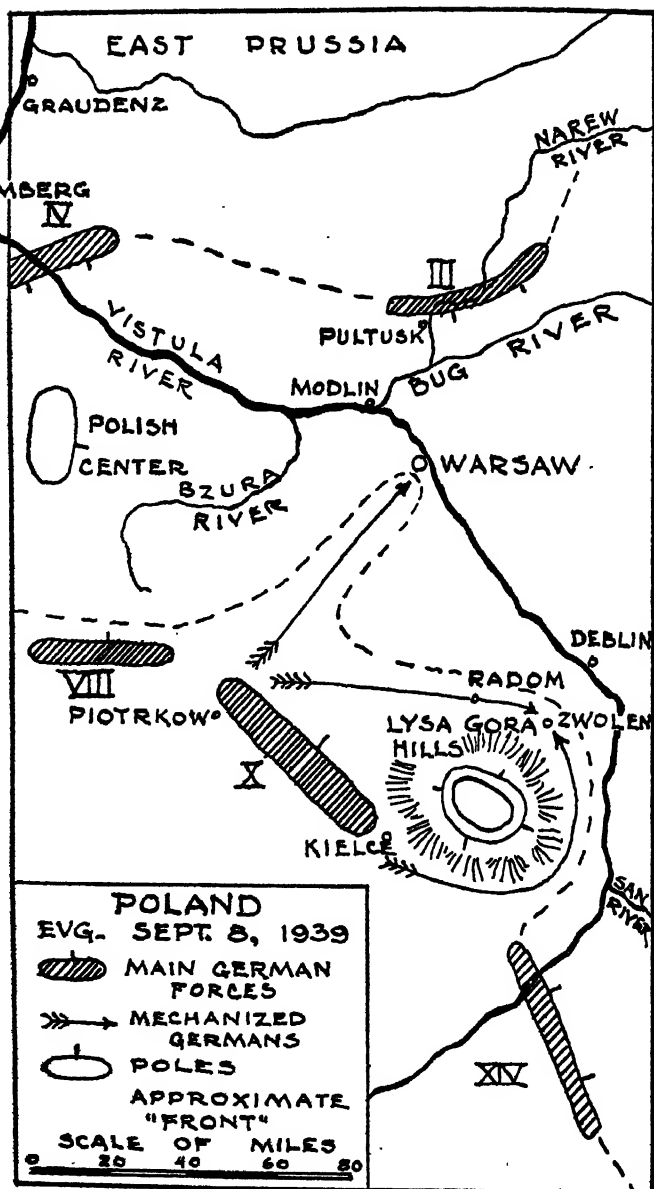
In the Polish theater, the Germans achieved a second economy of force by disposing their ground troops in two strong wings with practically no center. Although that center was only about 125 miles from Berlin, it stood in strong defensive country, the middle course of the Oder River, which flows through a region of little water courses, lakes, and canals. A handful of troops, perhaps one division of active infantry and some reservists, were thought sufficient to hold the German fortifications there for the short time before it was estimated that the advance of the German wings would threaten to cut off any Poles who might still be advancing in the center.

After rating as highly as possible the effectiveness of the fifth column and of the admirable German economies of force, the briefest sketch of the Polish campaign is enough to show the star parts played by the German planes and tanks. Both air and ground forces struck in the small hours of September 1, and for forty-eight hours every known Polish airdrome was repeatedly bombed. At Warsaw the bridges over the Vistula were attacked by planes which did not try to molest the rest of the city. The Polish air-warning system and antiaircraft defenses were ineffective, and most of the Polish planes were destroyed on the ground. On September 3,



most of the air attack was shifted to the Polish railroads west of the Vistula. Warned by the ill success of attempts to bomb stations and roadbeds in 1914-18, the German aviators concentrated against the rolling stock, which is more vulnerable. The defective Polish road net made interruptions of railway traffic particularly important. On September 5 the German Air Command, probably judging that the railways had been sufficiently battered, began to attack marching columns of Polish troops. Meanwhile, most of the known aircraft factories and the large ammunition factory had been destroyed.

At the same time, the German ground troops had been advancing rapidly on all fronts. Up to September 6, although the Poles had lost territory which was valuable both strategically and economically, their retreat had been coherent. On that day, however, a gap opened in their retreating formations at a point about eighty miles southwest of Warsaw, from which one of the few good Polish roads led to that city. Through this gap on the morning of September 7 the Germans pushed two mechanized groups, each of one or more armored divisions. One of these groups, rushing forward unopposed at forty miles a day, by the evening of September 8 had thrust forward a long narrow salient to the outskirts of the Polish capital. Could this salient be held, it would cut off the whole Polish center—which amounted to at least ten divisions, a third of the Polish active infantry—from retreat on the left bank of the Vistula. Meanwhile, the German left had joined the East Prussians across Pomerania and was fighting its way southward toward Warsaw, thus threatening the already compromised Polish center with a pincers movement or double envelopment. At the same time, the second German mechanized group just mentioned, also starting from about eighty miles southwest of Warsaw but racing eastward instead of northeastward, after another lightning advance got into the right rear of a group of four Polish divisions which had retreated to the Lysa Gora hills. Northeast of the Lysa Gora the advance guards of this second mechanized group joined hands with those of a third German mechanized body which, after still another lightning dash, had gained the left rear of the Lysa Gora Poles, thus completing their encirclement. To anticipate events, these encircled divisions and almost the entire Polish center were militarily destroyed. After furious attempts by both groups to break out, the Lysa Gora Poles—60,000 officers and men, 143 guns, and 38 tanks—

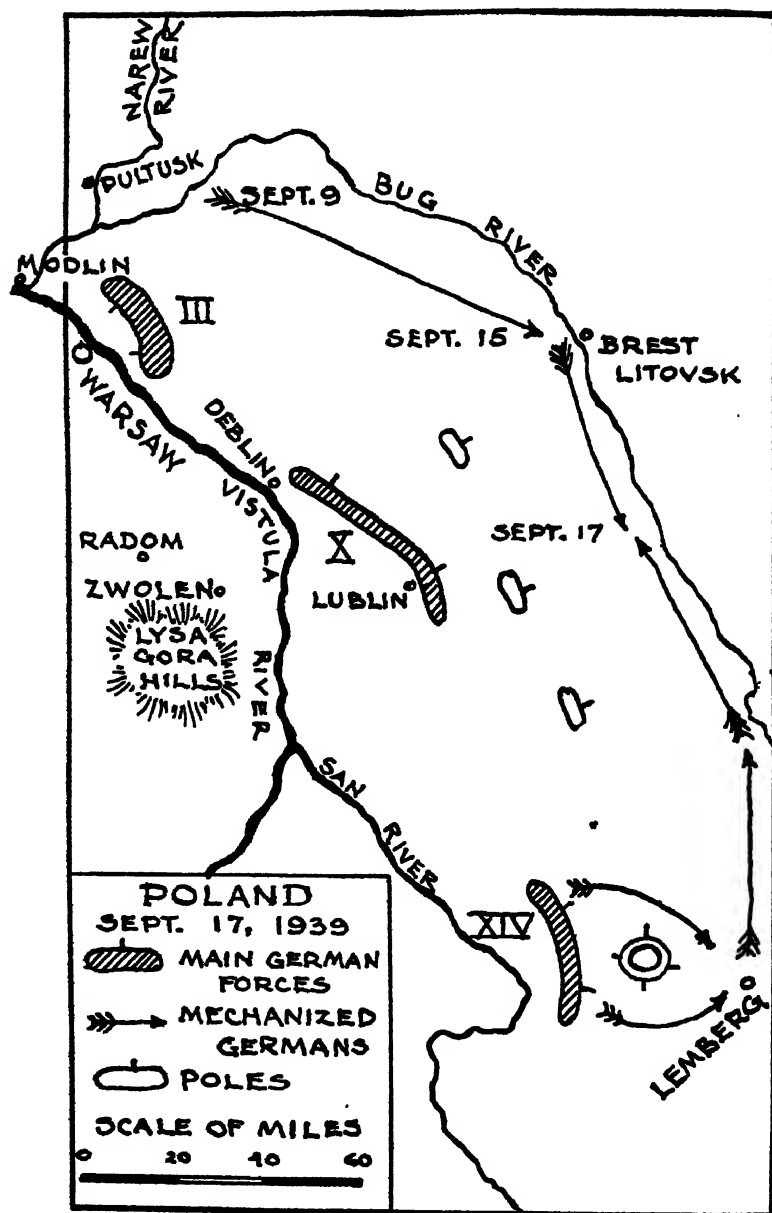


surrendered on September 12, and five days later the Polish center—170,000 officers and men, more than 320 guns, and 40 tanks—also gave themselves up.

Some days before these surrenders a third double envelopment, geographically much larger than the first two, had been begun from the two extreme German wings. On September 9 the German left, advancing southward from East Prussia, had forced a crossing of the lower part of the Bug River north of Warsaw. On the same day a strong mechanized group which had stood on the extreme left cut loose from the nonmotorized infantry and charged south-eastward toward the fortress of Brest-Litovsk. At first the resistance of a Polish division slowed the German armor, but on September 12 progress became rapid, and on the fourteenth Brest was reached and taken except for its citadel. Nor did the East Prussians stop there. They continued to advance southward up the course of the Bug, until on the seventeenth their motorized advance guard made contact with a similar German force advancing northward from the extreme German right. This last mechanized body had begun to encircle Lemberg from the west on September 14, and on the seventeenth was more than one hundred miles north of that place. The net thus thrown around what was left of the Polish Army was thin, but by this time that army had been so cut up that little remained to do. The gallant but hopeless resistance of Warsaw itself and of certain other isolated points had no strategic effect. Nevertheless, the spirit of the Poles, who emphatically refused to declare their capital an open city, may yet bear fruit in the future.

On the same day, September 17, that saw the completion of the third German double envelopment, Soviet troops, acting as jackals to the German lion, invaded eastern Poland, cynically alleging a breakdown of public order there in almost the same words used by the equally cynical czarist Russian soldiers of Catherine the Great in an earlier Polish partition. The Germans, retiring slightly, allowed the Soviet forces to advance to a line previously agreed upon, consisting chiefly of the upper San and the middle Bug.

The reader, realizing from the rapidity with which the Germans had thrice enveloped the Poles that in each case the original net thrown around the victims must have been comparatively frail, may well ask why the victims—who were in each case much stronger than the light German mechanized forces in their rear—



were in no case able to cut their way out to the east. The point is of capital importance, moreover, in the German scheme of lightning war.

In the first place, nothing like such mechanized speed had ever been made before, so that both the Polish Command and the Polish units were intellectually unprepared. Today it is easy to see the thing as a logical development which combined the German infiltration tactics of 1917-18 with the Allied tank tactics of the same two years. The method of driving in deep salients and then connecting their tips in the rear of considerable hostile bodies had been repeatedly practiced in Spain. Nevertheless, the bewilderment of the Polish Command at the mere rapidity of the movements was natural.

That bewilderment was increased, and indeed the daring envelopments were made possible only by the German air supremacy. The destruction of the Polish Air Force made it difficult for the Polish High Command to know what was happening, for want of air reconnaissance, whereas the Germans were fully and constantly informed. Thus the Polish operations were like those of a partially blindfolded man. In addition, the German air attack on Polish communications and marching columns hindered such counter-measures as the Polish Command might undertake.

Further, an encircled force is at a disadvantage both morally, technically, and in point of supply. The moral point is as old as war. If battles were merely mathematical problems, the Roman center at Cannae would have broken Hannibal's line. Instead the Romans were so shaken by the din of war all around them that hardly any escaped. Colin writes that Napoleon's rapid encircling movements "... contributed most to make his attacks overwhelming. . . . At sunrise . . . while the divisions seen the previous evening renew the fight, suddenly guns thunder behind the Austrians . . . surprise . . . made terrible. . . ." A Confederate doggerel of the Civil War, still repeated at the beginning of the century, said:

If you want to see Yankees just tremble with fear,
Tell them that Jeff Davis has got in their rear.

Even if the encircled troops keep their heads, they are tactically embarrassed because they must change front under pressure while con-

tinuing to guard their old front and both flanks. In other words, as the old armies put it, they must march or stand in hollow square. In the case of the encircled Poles, their whole formations had to strike eastward while their flank and rear elements continually had to turn and face outward against German attacks. Thus the difficulty of facing in all directions tends to immobilize a surrounded force, like a porcupine or hedgehog rolled up. Finally, there is the impossibility of supply. Modern armies are so large that they can seldom live long on food locally bought or seized. They must be almost continuously fed along lines of communication, like divers who cannot remain underwater without having air pumped to them through a hose. In order to fight, they must also be almost continuously supplied with enormously heavy masses of ammunition. Neither the rations nor the ammunition which they are carrying with them when encircled will long suffice.

Together all these disadvantages are so formidable that the good training and high courage of the Poles are shown by the fact that their encircled center nearly succeeded in cutting its way back to Warsaw. Only by concentrating a large part of the available German air strength for use as flying artillery against the advancing eastern face of the Polish "hollow square"—really a sort of oval—and by rushing up all available German ground troops, especially motorized units, were the Germans barely able to hold.

The speed of the campaign confined it almost wholly to the active units on both sides. Few German reserve formations were needed, while the German lightning tactics kept nearly all the Polish reserve formations from ever getting into action. How cheap in blood the German lightning victories were to all concerned, and how superlatively cheap to the victors, we shall see at the end of this chapter.

During the Polish campaign the English and French hardly moved. Apparently not one Allied combat plane was flown to Poland. To encourage the Poles, so it was said, the French advanced a very little way across the German border in Lorraine, but halted at the first German fortifications, and withdrew to their own fortified zone soon after the decision in Poland had been reached. While they might have justified themselves to their unfortunate Polish allies by saying that they were fighting a war of attrition which, if

finally successful, would restore Poland, still their performance was not brilliant.

Nevertheless, when Hitler in a speech early in October publicly offered peace, the English and French governments paid no attention. If they were not yet prepared to wage enterprising war, neither were they ready to quit.

Meanwhile, the high spirit of the Poles had never burned more brightly than in what seemed total defeat. Their leaders were accustomed to go into exile abroad, and at home to struggle against fearful odds. Both the combativeness of the numerous Polish refugees and the potential strength of the "underground" army, which was organized under the German heel, were notable.

From the surrender of the last Polish fortress on October 2 until April 9, 1940, just over six months, there followed a strange pause. At sea German submarines and planes waged sporadic warfare against Allied merchant shipping and antisubmarine forces, but on land and in the air over the land nothing happened. The garrisons of the two fortified zones occasionally fired at each other, while British planes from time to time dropped leaflets on Germany urging the people there to revolt against their National Socialist government which had just won so brilliant a victory in Poland, and that was all.

This unexpected pause became a subject for jest. In America it was called the "phony war," in England the "sitzkrieg" or "Bore War." The Germans continued actively organizing new units; by the end of April they had over 190 divisions of various sorts, an increase of more than 50 as compared with their September total, while the French added only 4 new divisions to their original 111, making a total of 115, and the British increased their expeditionary force in France to 10 combat divisions, plus 3 others still imperfectly organized and short of artillery. These, together with independent units and a Polish division of which the officers and men had either been living outside of their own country or had escaped from it since its fall, made a total of about 130 Allied divisions, of which 3 of the British were incomplete and 18 of the French were on the Italian front or in Syria and North Africa, leaving a total of about 109 for the German front. Obviously, in the Allied camp defensive theory still ruled. In November and again in January the Germans moved

considerable forces as if to invade Belgium or perhaps both Belgium and Holland, but in each case nothing happened. Even propaganda was toned down. Nothing was heard of German atrocities, while the German propaganda machine merely sought to detach France from England and to soothe the French into believing that the Germans were not really hostile toward them. Twice the French actually demobilized considerable numbers, sending home subject to recall all conscripts over forty-nine and all fathers of two or more children. The first installment of released men was estimated at 100,000.

The abysmal contrast between all this and the furious opening campaigns of 1914 led one widely read American magazine, Father Coughlin's *Social Justice*, to suggest that the British and French were waiting for the United States to come in before beginning a real war. Other commentators played with the phrase "limited war," although the size of the forces mobilized was still far too great for a truly limited struggle. Obviously the mere maintenance of such forces sets up considerable internal strains. As the United States has since learned, a country which approaches full mobilization is, in one sense, largely self-blockaded. Most of those who had seriously studied war correctly predicted, usually in little articles buried in technical military journals unknown to the general public, that the Napoleonic and Clausewitzian idea of destroying the hostile armies had by no means been abandoned.

The only real fighting during the "phony war" was a side show in Finland. The Soviets attacked this little country on November 30, a timing of an Arctic and sub-Arctic campaign which showed clearly that they thought that a mere show of force would persuade the Finns to great concessions. Instead the Finns fought, and with some success, against the Soviet colossus—they had always despised the Russians as barbarous—holding out for four months and inflicting heavy casualties upon the second- or third-line Soviet troops first sent against them. The end came in 1914-18 style. When sheer weight finally pounded them off the isthmus between the Gulf of Finland and Lake Ladoga, the Finns grudgingly surrendered.

The first break in the self-imposed deadlock in the west was not of the sweeping Napoleonic-Clausewitzian sort, but had for its ob-



ject the seizure of territory whose occupation by the Germans would improve their position at sea, i.e., Norway.

Except for its large merchant fleet, the strategic importance of Norway was geographical. Its sparse population of just under three million was less than that of the borough of Brooklyn, and its natural resources were inconsiderable. On the other hand, its southern part faced southward on the entrance, there about 80 miles wide, to the Baltic, and westward across the northern entrance to the North Sea, less than 300 land miles across to the Scotch mainland and less than 200 to the Shetland Islands. Moreover, the deeply indented Atlantic coast of Norway extended in a succession of harbors for nearly 1,000 air miles northward to the North Cape. Thus if the Germans could hold its Atlantic coast strongly enough to make British naval approach hazardous, then their surface warships could no longer be penned into the North Sea, but could get out into the North Atlantic at will. German possession of southwestern Norway would facilitate the bombing of Scotland. The transport to Germany of the iron ore from the mines of northern Sweden, the finest iron ore in the world and essential to German war industries, was largely by rail to the Norwegian port of Narvik, about 180 air miles from the North Cape, and thence down the Norwegian coast within territorial waters where the British Navy and Air Force could interfere with it only by violating Norway's neutrality. In peacetime some eight million tons of ore annually passed through this ice-free harbor. The ore could indeed be shipped by rail to Swedish ports on the northern Baltic or even to ports in southern Sweden; but at best this meant a longer railroad haul. Water transport is cheaper than transport overland, and the northern Baltic is frozen much of the year. To counter a German move into Norway the numerically inferior English and French might be tempted to weaken their main land front in France. It is also possible that the Germans, reasoning from their own willingness to violate neutrality, may have feared an Anglo-French invasion of Norway, from which northern Germany could be bombed by air.

As a preliminary to invading Norway the little state of Denmark would have to be seized, but in our age of air power the geographical position of the Danes was unfavorable, and in any case their unwarlike character and negligible preparedness made effective local resistance unlikely. National character and unpreparedness were

much the same in Norway, but there Anglo-French intervention might be counted on. Like Norway again, Denmark was important because of her large ocean-going merchant fleet. Incidentally, it is strange that two such hardy peoples, with so many bold sailors among them, should have had so little military tradition.

In Norway the pro-German fifth column, German "political surprise," and the German Air Force were to play even larger parts in proportion to that of the regular German ground forces than in Poland. The German invaders were to include a considerable number who had learned the language of the country by being hospitably received there as children during 1914-18 in order to protect them from possible malnutrition caused by the British blockade. It is said that the German authorities told these men that they were being sent to Norway to "rescue" their former hosts from the English. In addition, German agents posing as tourists had traveled about and made sketches, especially of bridges. Some of the small number of active Norwegian traitors occupied key positions from which they could give false orders and confuse the defense.

The German plan of operations was to seize the principal harbor towns by "political surprise" from the air and from the sea. At Narvik and at certain other points small bodies of German troops were smuggled in by keeping them undercover in the holds of apparently peaceful merchant ships. Elsewhere German warships and transports entered the harbor mouths at dawn, trusting to the fifth column to silence the Norwegian coast defenses or at least to confuse their garrisons. Initially the key point was the capital, Oslo, a city of more than a quarter of a million people which was formerly called Christiania. There the fifth columns were to capture the aged king and his ministers and to help the German Air Force to seize the large airfields, while the principal force of German warships and transports entered the harbor. Serious resistance was to be expected only from Anglo-French intervention, in which case the German Air Force was to do most of the work, protecting German sea transport to Oslo by keeping British surface ships out of the Skagerrak, the eighty-mile-wide strait between Norway and northwestern Denmark, and afterward acting as mobile, long-range, coast-defense artillery when the southwestern and central Norwegian airfields should have been seized.

If there be such things as right and wrong, such an attack on two

harmless little neutrals was criminal. It was also extremely bold, especially as to Narvik, where the small German force would certainly be cut off by the overwhelming British Navy, and would be separated by some four hundred miles of largely roadless country from the nearest handful of other Germans at Trondheim. Ironically enough, on April 8, the day before the long prepared German invasion was to begin, the British violated Norway's neutrality by laying mines in Norwegian territorial waters. The German action was drastic out of all proportion to this undoubted breach of international law.

On April 9, 1940, the opening German moves were wholly successful in Denmark, where hardly a shot was fired, and almost wholly successful in Norway. There the old king and his ministers escaped. A story which illustrates the tiny scale of the first German strokes is that the invaders pursued them in four motor buses which, however, were sufficiently delayed by farmers who blocked the road by upsetting wagons across it. Also, the German Navy suffered appreciable losses at the hands of some Norwegian coastal gunners whom the fifth column was able neither to overpower nor to mislead. With these exceptions, the invaders were everywhere successful. German air transport of troops in the first campaign in which it had played an appreciable part worked smoothly. British surface ships did not even try to enter the Skagerrak, so that the flow of German reinforcements was not appreciably interrupted. Nor did the British Navy assault any port which had fallen into German hands except Narvik. On shore the invading forces largely paralyzed the resistance of the unwarlike and ill-trained Norwegians by spreading misinformation and by seizing most of the small stock of arms and ammunition. Little if any Norwegian demolition work delayed their movements. The thing was like the numbing of an unsuspecting, peaceable man by a series of light but accurately aimed blows, hardly more than taps, on his nerve centers at the hands of a master of jujitsu. Even toward the end the Germans numbered only about 150,000, and they were at first much fewer.

About a week after the first German landings, hastily assembled and ill-armed Anglo-French contingents, without either combat aviation or antiaircraft guns, began landing in the Narvik area and in ports on either side of Trondheim, which the Germans had not

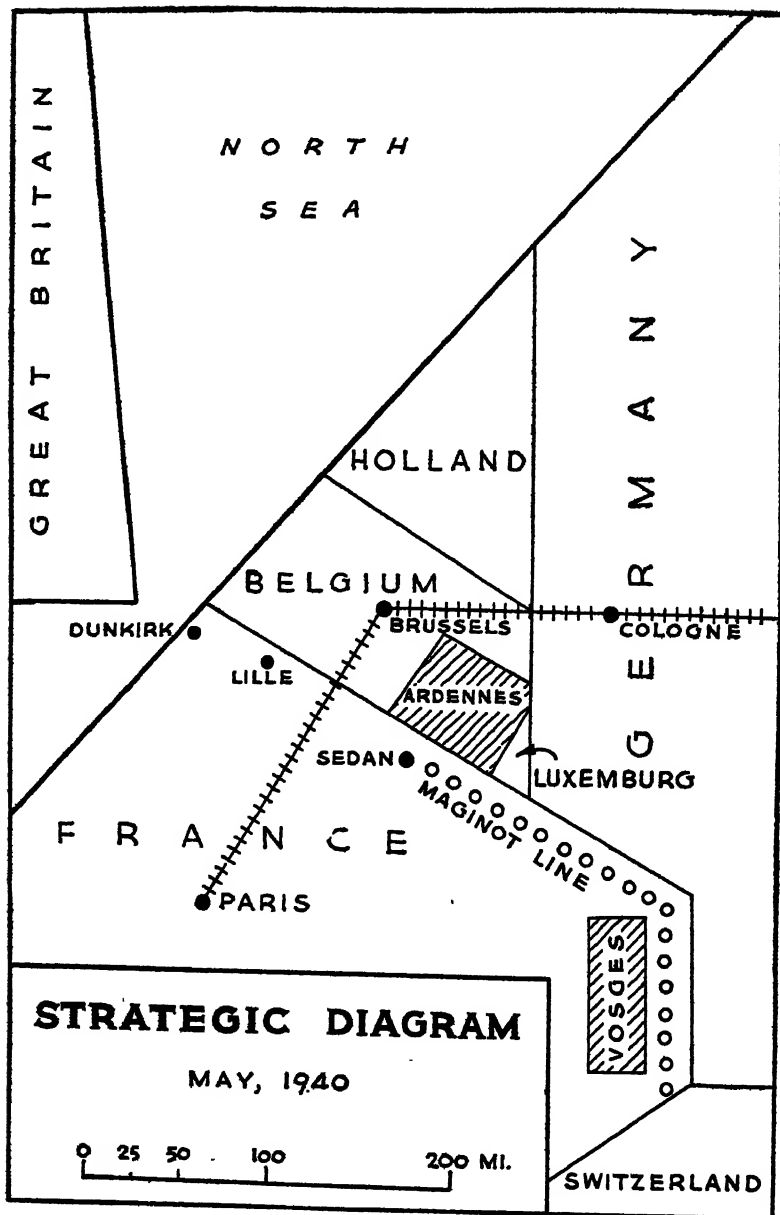
occupied. Certain Anglo-French detachments were pushed more than a hundred miles upcountry along the valleys leading from the Trondheim region toward Oslo to join the Norwegian troops. The Germans, however, reacted promptly. Discovering the Allied weakness in the air and in air defense, they bombed the Anglo-French debarkation points with great effect. On the ground they advanced with the greatest energy, pushing not only infantry but occasional tanks over what were thought to be impassable and deeply snow-covered mountain cart tracks in order to outflank their opponents. Within about a fortnight the British and French in the Trondheim area were forced to re-embark, and those Norwegians still resisting in southern and central Norway surrendered.

Only around Narvik, 400 air miles from the nearest German-occupied air base, was Allied amphibious power able to get the upper hand; the Germans being unable to reinforce and supply their troops except inadequately by air. Even here, although their destruction was obviously approaching, they were still holding out, and a German relieving column had accomplished about three-quarters of the extremely difficult task of reaching them overland from Trondheim when on June 9 the British and French re-embarked for more pressing tasks elsewhere. The local Norwegian troops then surrendered, and German control of Norway was complete.

Before the Anglo-French evacuation of Narvik, the fate of France itself had been decided.

During the prolonged pause or "phony war" which had followed the conquest of Poland, the Allied governments and High Commands had profoundly modified their plan of campaign. Their defensive theory was unchanged but they were now prepared to gamble on it more heavily than before by advancing the left wing of their defensive front into Belgium and Holland if the Germans should invade those little neutral countries.

Geography, policy, and numbers all played a part in this decision. From mountainous Switzerland to the North Sea the French border runs, roughly speaking, for about 100 air miles northward along the Rhine and then for about 300 miles northwestward, reaching the sea just above the port of Dunkirk. Along the Rhine and for the easternmost third of the second limb, that frontier faces the Reich,



but thereafter for about 25 miles it faces the tiny neutral state of Luxemburg, and the remaining 175 miles face Belgium. The western border of the Reich runs in a general direction northward from the point where it leaves the French frontier for something less than 300 air miles to the North Sea, facing Luxemburg for the first 50 miles, Belgium for the next 50, and Holland for the northernmost 200. Holland is roughly a triangle some 200 miles high and more than 100 wide at the base, while Holland and Belgium together form a larger triangle more than 250 miles high and somewhat less than 200 wide at the base where Belgium borders upon France. Behind most of the 100-mile stretch throughout which the Rhine is the Franco-German boundary, the Vosges Mountains parallel that river on the west, forming a second natural obstacle. From their northern tip a traveler moving northwestward inside the French frontier for the first eighty miles of his trip crosses a region which is on the whole good campaigning country, the so-called "Gap of Lorraine." Should he continue northwestward, for the next seventy miles he might notice on his right in Luxemburg and in Belgium just across the border the edge of a wooded district of steep little hills and ridges, the Ardennes. Should he turn northward to explore the Ardennes, he would find no main railway lines and few good roads running through them. If, on the other hand, instead of turning northward he should continue northwestward, he would cross more than one hundred miles of good campaigning country between the Ardennes and the sea.

North of the French frontier this open country is called the Belgian Plain. From Paris 130 miles south of the border to Brussels 40 miles north of it, and from Brussels through Cologne to Berlin, runs one of the principal railroad lines of Europe. The whole Paris-Brussels region, which Clausewitz called "the pit of the French stomach," is studded with old battlefields. After crossing this railroad line our imaginary traveler along the frontier to the sea would have passed through two other districts important to economics and therefore to any prolonged war: first the Franco-Belgian coal seam, second the centers of the French textile industry around Lille. On reaching Dunkirk, had he turned to the left and advanced southwestward twenty-five miles along the French coast to Calais and a little beyond, he could have seen on clear days the chalk cliffs of Dover only some twenty miles away.

This somewhat tedious catalogue of distances is needed to show the American reader the small scale of the theater. The distance from Paris to the Belgian border, or to the French town of Sedan just southwest of the Ardennes, is about that between Washington and Philadelphia, and shorter than the distance from New York to Providence or Albany. The air distance along the northeastern French border from the Rhine to the sea is not much greater than that between Washington and New York.

The Rhine-Vosges sector, the Gap of Lorraine, and the region south of Luxemburg had all been strongly fortified by the continuous obstacle of the Maginot Line, but that line, for political reasons to which we shall come in a moment, had not been extended along the Franco-Belgian border to the sea. Some defenses had indeed been built there both before and after the beginning of the war, but nothing to compare with the Maginot Line proper. Further, from both the British and the French points of view there were grave disadvantages attached to standing on the Franco-Belgian frontier. Such a stand would leave only the Belgian Army between the Germans and the Belgian ports, which had been such troublesome German submarine bases in 1914-18, and might prove even more dangerous as German air bases. Even German air bases in Holland resulting from a successful invasion of that country might well be inconvenient to England. Besides, the Dutch and Belgians might not fight if they knew that the French and English meant to leave them unsupported. In peace the Belgians had threatened to let the Germans in if the French fortifications were prolonged to the sea. Still other French arguments against resisting on the Belgian border were that both the coal fields and the textile center would immediately become part of the battle zone.

These geographical points were reinforced by considerations of numbers. There were only 115 French divisions, 7 of which stood facing the Italians between Switzerland and the Mediterranean, 8 in North Africa, and 3 in Syria, while the equivalent of two had been sent to Norway. Thus 10 British and the one Polish division in France would bring the Allied total available for the northeastern French border to only 106. By the spring of 1940 the Germans may have had as many as 240 divisions, of which about 190 were available for the western theater. Against such odds the 21 Belgian divisions and even the 9 Dutch divisions would be wel-

come additions. Also, the Dutch water lines and the Belgian fortifications were strong. In some respects the Belgian works were even more elaborate than the Maginot Line.

Against the foregoing arguments there was the stubborn fact that both Belgians and Dutch insisted upon observing the strictest neutrality. Up to the moment when Germany might invade them they would do nothing which might in the least provoke their formidable eastern neighbor. Consequently, although there was a good deal of to and fro behind the scenes, there was no fully co-ordinated Dutch-Belgian-Anglo-French plan. Indeed, the Dutch and Belgian plans were ill combined with each other.

Nevertheless, during the "phony war" the English and French agreed with each other, probably about mid-November, '39, that the advantages of moving into Belgium outweighed the disadvantages. After much discussion they drew up their plan and passed on at least the outline of it to the leaders of the two little neutral states. That plan as finally adopted called for a Franco-British advance, pivoting on Sedan, to establish a front along the Meuse as far as Namur and from there northward to connect with the Belgian Army, which was to cover Antwerp. The extreme French left was to join hands with the Dutch somewhere northwest of that town. This pleased everyone: the English because the Belgian coast was to be covered from well forward and perhaps the Dutch coast also held, the French because their coal fields and textile factories would not be in the immediate combat zone, the Dutch and Belgians because they were to be helped. Apparently it occurred to no one on the Allied or potentially Allied side that "everyone" might include the Germans, whose feints in November and January, together with their knowledge of the French High Command, had enabled them to gauge accurately what that command would do. The Germans correctly judged that the French would expect the main attack to be delivered by the extreme German right moving across the Belgian Plain. This plain, together with the Lorraine Gap, had been the immemorial highway of invasion, and now the Lorraine Gap was closed by the strongest works of the strong Maginot Line.

No Ally or potential Ally seems to have thought of the Ardennes as a particularly dangerous region. It seems to have been taken for granted that the main currents of invasion would be canalized away from that difficult terrain as they had always been in the past.

It is indeed true that campaigns must always be canalized by natural features, but it is also true that the extent and nature of that canalization will change vastly with changes in the means of transportation. It was the error of the French soldiers, whose road transport was still largely horse-drawn, that they were still thinking in terms of the railroad strategy of the late nineteenth century. Conversely, it was the merit of the Germans to appreciate that the iron horse was no longer rail-bound, but was now a cross-country and even a flying animal. Although they well knew that even under the new conditions the Ardennes would be harder to cross than the open Belgian Plain with its admirable road net, nevertheless they believed a considerable motorized and mechanized ground force, strongly seconded by their great air superiority, could cross the few roads of the difficult, hilly woodlands in far less time than their opponents thought possible. While still struggling forward in the woods, for it would be a struggle against nature even if otherwise almost unopposed, they would confuse their enemies by striking with their right where their secondary blows, if successful, would show conspicuous results before their main effort, however rapid, could begin to take effect. Thus for infinitely precious hours or even days they might confirm the French Command in its original and mistaken belief that these secondary blows were the main blows.

In a word, the German Staff, with its tradition of so many Prussian and Prusso-German victories, proposed to reverse its defeat of 1918 by boldly but deliberately operating on the theory of the impossible. This, when it works, in war or in other activities, succeeds enormously. They proposed to achieve strategic surprise as to the direction of their main blow and, at the same time, technical surprise as to the speed and power with which the gasoline-drinking iron horse could deliver that blow. Some well-read officer of their historically minded staff, as he ground away with typical German thoroughness at his share of the infinite details of the plan, may have murmured to himself the famous maxim of the seventeenth-century French cardinal De Retz: "That which appears hazardous but really is not, is nearly always wise."

In addition to pure strategy the political preparations characteristic of National Socialism were not neglected. "Political surprise" was of course to be achieved by attacking without declaring war. Moreover, Hitler only shortly before May 10, the day fixed for the

attack, had publicly and solemnly said that there would be no invasion of Belgium and Holland. In Holland the German and pro-German fifth column was stronger than in any other western country. In Belgium there was a pro-German party, Rexists or "King's Men," genuinely disgusted—like most of Europe—with parliamentarism but oddly named, since they were about to act against their legitimate sovereign. In France there seem to have been no active traitors of importance, but the corruption, incompetence, and petty personal rivalries characteristic of the parliamentary Third Republic had by this time so divided the country that no wise and vigorous political leadership was to be expected should difficulties arise. The French communists were not a major factor, but for what they were worth they were hindering the war effort.

The military weaknesses of the amended French plan, when studied in detail, were even worse than the political weakness of that country. It is one thing to defend a previously prepared position, quite another and a far more difficult thing to rush forward, not to attack your enemy but to defend against him a position much of which you have not even been able to reconnoiter in detail. Gamelin, the French generalissimo and the nominal Allied commander in chief of land operations, had faithfully reflected Franco-British military thought in highly esteeming the defensive behind fortifications. In a phrase which was often repeated he had said: "In this war the first party which comes out of its shell"—meaning its fortified zone—"will be in great danger." Yet here he was proposing to push forward about a third of his available divisions into Belgium, not to the strong eastern Belgian fortifications which the new Allied plan of operations now degraded to the rank of merely delaying positions but to a defensive line of which parts were lightly fortified and the rest not fortified at all.

Worse still were the French troop dispositions. In this regard the least that could have been expected was that the Allied forces which were to expose themselves in central Belgium outside of their fortified "shell" would be much stronger in proportion to the width of their new, largely unfortified front than those French units which were to remain in and behind the main Maginot Line. Instead, if we neglect the French flying wing which was to rush along the Belgian coast into Holland, only about 25 English and French divisions were assigned to the prospective 85 miles of the new open

front from Sedan to the neighborhood of Antwerp, where the Belgian Army was to take over, while no less than 55 divisions stood on the 250 miles of strongly fortified front from Sedan to Switzerland. Thus the average width of the divisional sectors on the new front would be nearly three and a half miles, while on the old front it would be only one mile more—a low premium to put on the great Maginot forts. In addition, most of the French general reserve was stationed not behind the left wing, which was to advance, but behind the center and right, which were to stand fast behind their prepared defenses.

The Ninth French Army under Corap, which was to hold the fifty-five-mile front along the Meuse from Sedan to Namur, had nine divisions, two of active infantry, two of Series A reserve infantry, two of Series B reserve infantry—ill armed, overage, and undertrained—one “fortress” division untrained in mobile warfare, two light cavalry divisions—half horsed, half of armored cars—and one separate cavalry brigade. On the northern fifteen miles of his front Corap put his two active infantry divisions, his best troops. On the remaining forty miles he put his fortress division and his three reserve divisions. Consequently each of his inferior divisions had to cover a ten-mile front, although the French Army regulations called three and a half or four miles the maximum divisional front which could be effectively held. The 61st Series B Reserve Division on the sector which included Monthermé, about twelve air miles downstream from Sedan, had not one antitank gun. Moreover, on the extreme left of Huntziger’s Second French Army, in touch with Corap’s reservists just below Sedan, were two more Series B reserve divisions. Such were the guardians of the Sedan-Monthermé “hinge” sector on which the main German blow was about to fall.

In the mobile arms the Germans’ numerical superiority was even greater than in the older branches. In infantry and old-fashioned artillery they outnumbered the French and British by a little less than two to one, less than ten to seven if the Belgians and Dutch are counted, but they had at least twice as many available planes as the French. In tanks the proportions are less certain; the German numerical superiority over the French may have been only four to three, or it may have been more than two to one. Here, however, numbers were less important than doctrine. The French might have had any quantity of tanks without gaining much, so long as

they persisted in scattering most of what they had among the infantry instead of massing them as the Germans did in their armored divisions. The British planes were of high quality, but both they and the British tanks in France were numerically negligible.

In spite of all this, the French Command seems to have thought of Belgium as a trap into which it was hoped that the Germans might fall. Gamelin is reported to have said that the Germans would not invade Holland, since doing so would block the only avenue by which they could still receive supplies from overseas. The Germans struck across the eastern borders of Holland, Belgium, and Luxemburg in the small hours of May 10, and in six days the Anglo-French plan was in ruins.

The five days' campaign in Holland had so little connection with the other operations that it may be considered separately. Its chief effect upon events farther south was, as the Germans had hoped, that the weight of their blow there may have prolonged the mistaken French belief that the von Schlieffen plan of 1914, with the extreme German right doing most of the work, was to be repeated.

The lightning German victory in Holland owed much to political preparations, to the failure of the Dutch and Belgians to unify their defenses, and to a tactical novelty—the use of appreciable numbers of parachutists.

As we have seen, the Dutch defensive scheme relied chiefly upon water lines which could be turned by "vertical envelopment." As early as 1929 the French admiral Castex had noted that small forces carried in planes which would land unexpectedly in hostile rear areas might have considerable effect. Also, the Soviet Army had experimented with parachute troops. Obviously, in spite of the disadvantages of such troops, the advantage of being able to land them without landing the planes which had carried them might facilitate aerial invasion, especially its advance guards. A handful of German chutists had been successfully landed near Stavanger in Norway. The chutist landings in Holland, however, were on a much larger scale and had for their object the seizure of the Queen and of airfields, especially the large airfield just outside Rotterdam. The Queen escaped but the Dutch Command felt compelled to assign two of its eight divisions, a quarter of the whole Dutch Army and its entire strategic reserve, to the task of hunting down the invaders who had so unexpectedly appeared inside the innermost

ground defenses. In Rotterdam German troops who had been concealed in the holds of merchant ships, as in Norway, joined the chutists in capturing the airfield and the bridges, which the Dutch were unable to retake. Meanwhile, Germans in plain clothes managed to seize and hold two more large bridges south of Rotterdam, and a German armored division, profiting by the gap between the Belgians and the Dutch, dashed westward against negligible opposition toward the southernmost of these bridges.

The final Dutch surrender was hastened by a disgusting piece of barbarity. Perhaps after Rotterdam had formally surrendered, certainly after local resistance had ceased, more than fifty German planes and some artillery deliberately bombed and shelled the city, starting fires by which most of the buildings in a considerable part of it were destroyed. According to one account the invaders afterward apologized for this, saying it had been done through a mistake in orders. At all events, rather than risk similar treatment for the cities in the small part of Holland which was still resisting, the Dutch Command surrendered on May 14. In view of what was to happen in Germany itself a few years later, it would seem that the rapid freeing of the German troops in Holland for service elsewhere was hardly worth the atrocity.

Meanwhile, events had been moving rapidly farther south. In Belgium the Germans had planned to combine their main thrust across the Ardennes with a secondary blow aimed at the northeastern part of the country, which if successful would have a more immediate effect. The Belgians had strongly fortified the region of Liège, and north of that town on a great knob of rock overlooking the junction between the Albert Canal coming from Antwerp and the Meuse River stood the formidable fortress of Eben Emael. Since the Belgians thought that the place was so strong that it would never be attacked, the Germans here too, as in the Ardennes, were acting on the "theory of the impossible." Most of the fort was underground, built to resist bombardments like those of 1914-18, with little more than low gun turrets showing above the surface. The guns had been sited to command the approaches, and none of them could be brought to bear so as to sweep the roof of the fort itself. The Germans seized several of the bridges over the canal and the river by men in plain clothes who deceived and killed the sentries, and were almost instantly reinforced by exquisitely timed flights of

parachutists, while at the same time they paralyzed the fort's guns by landing a small detachment of chutists on its roof. Either there were no sally ports or the garrison lacked spirit, for the only interference with the courageous German handful was shrapnel fire from other neighboring forts requested by telephone. This fire was not effective, and the chutists were able to throw explosive charges into the gun ports in the turrets and down the ventilating shafts. When German ground advance guards arrived with additional explosives, the increased air pressure and moral strain upon the garrison was enough to persuade them to surrender before noon of the second day, May 11. Deep in their underground galleries, they had long been unable to affect events outside, and since the early morning of May 10 German troops had been pouring past them into the Belgian Plain.

Meanwhile, the German force which was to deliver the main blow across the Ardennes had been hastening forward. That force was an armored army, including six or more armored divisions. It was commanded by von Kleist, a name famous in Prussian history; a von Kleist had been a corps commander against Napoleon in France in 1814. In the present war two of his subordinate commanders, Rommel and Guderian, were destined to rise very high. The technical problem of crossing the hilly woodlands had been minutely studied and repeatedly rehearsed. Among other preparations, numbers of sloping ramps had been provided to carry the vehicles over road blocks without the damage to the roadway which would have resulted from demolitions.

Nevertheless, the first day's advance, although unopposed, was comparatively slow. The night of May 10 found the advance guards only about thirty-five miles from the frontier and halfway across the woodlands, and the German Command was anxious lest the surprise on which so much depended might fail. At the same time, the French Command had been admirably prompt. When the Belgians had asked for aid Gamelin had begun telephoning orders by six-thirty in the morning. Cavalry detachments of Huntziger's Second French Army had crossed the Belgian border south of the Ardennes within an hour, and all the Franco-British left had begun its advance. Corap's opinion differed from Huntziger's in that the commander of the Ninth Army preferred to keep his cavalry divisions only a few miles in front of his main forces, but when

Arms and Policy 1939-1944. by Neckers, Hoffman. Dec. 18 54.

Huntziger complained to General Headquarters that the Second Army cavalry was not being supported on its left, Headquarters ordered Corap to push the cavalry of the Ninth Army forward to help Huntziger's mobile formations in delaying the Germans in the Ardennes east of the Meuse. Although no French commander yet realized how little four lightly armed "cavalry" divisions, half of each horsed and half in thinly armored cars, could do against the German air-supported armor, the event was to prove that Corap's idea of keeping his forces together, at least until the main line of resistance along the Meuse had been occupied by the infantry, would have been the better policy for the Ninth Army to follow. On the first day the French High Command, knowing that Eben Emael had been neutralized and the Dutch airdromes taken, emphasized its incorrect estimate of the situation by ordering all three of its light mechanized divisions to advance north of the Meuse into the Belgian Plain about twenty miles west of the neutralized fortress.

On the second day, May 11, the spirits of the Germans rose. Von Kleist's advanced guards, unharassed from the air and vigorously supported by numbers of German dive bombers which constantly attacked Corap's and Huntziger's cavalry, forced the latter to retreat rapidly. By two o'clock what was left of Corap's horsemen and armored cars had recrossed the Meuse, toward which the infantry of his northern flank was still advancing. By five-thirty Huntziger's mobile elements were in full retreat, and by midnight the fast-moving Germans, having advanced about ten miles during the day, were now about forty-five miles from their frontier and only about ten from Sedan. That night Corap, seeing from the prompt defeat of his cavalry by German planes and armor that his position might soon become difficult, asked for reinforcements. As in the early morning of May 10, the French High Command was prompt. In the night between May 11 and 12, orders were given for the nearest available French divisions, one of armor and three of infantry, to start next day, May 12, for the neighborhood of Sedan, and for a second armored division and five more of infantry to start in the same direction on May 13.

Thus before dawn on May 12, the third day, French General Headquarters recognized that a formidable German attack, perhaps the main attack, was coming not north but south of Namur. If

masses of men and matériel could be spirited about by waving a wand, as many enthusiasts for "global security" seem to think, all would have been well. Unfortunately, both for the arguments in favor of global security and for the Allies in the crisis which we are considering, the movement of armed forces is governed by the exact and difficult science of military movement known as logistics. Had the French reserves possessed more rapid means of transport they could have moved faster, but in any case their movement would have been limited by the capabilities of the transport available. In the present case the first group of Corap's and Huntziger's reinforcements, which was to start May 12, could not arrive near Sedan until the seventeenth. For three days, therefore, the Ninth and Second Armies could expect no help whatsoever from ground troops. As for the French and British air forces, they were largely parceled out among the major ground units. The second group of French ground reinforcements which was to start on the thirteenth could not arrive before the twenty-first—nine days.

On May 12 the advanced units of the infantry-artillery divisions of Corap's center and left, pushing forward at the top of their slow speed, reached the Meuse. By evening of the same day von Kleist's advanced guards were up to the opposite bank of that river from Namur to Sedan.

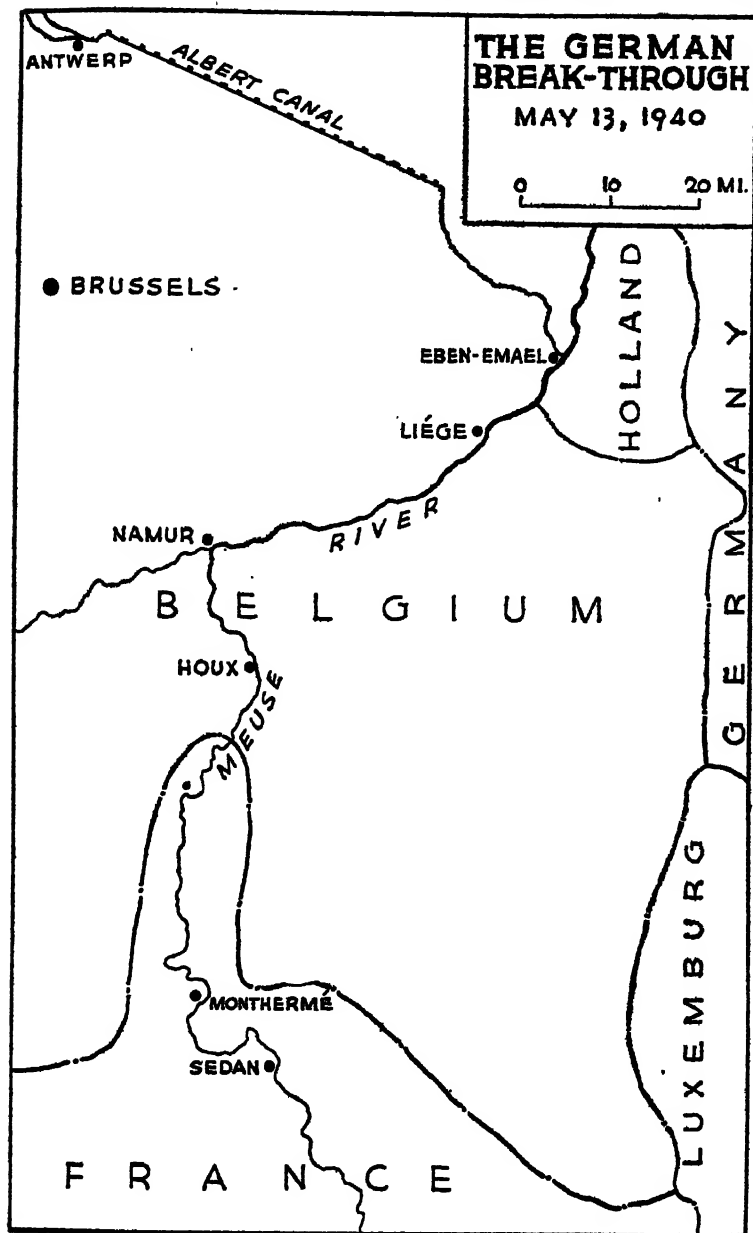
In the night of May 12, the German command had a difficult decision to make. They had outrun their timetable and, of course, most of their artillery. Von Kleist decided to attack at once, trusting chiefly to dive bombing for the preliminary bombardment to prepare the assault which would be made by the motorized infantry of his armored divisions. In this critical case, therefore, the armored divisions were to break the hostile formations themselves instead of following the usual procedure of exploiting a breach already made. "All time not turned to account serves the defense," as Clausewitz, whom one might almost call the writer of the German officer's Bible, lays it down. In fact, Corap had already covered the southern third of his long front as strongly as the small numbers of his reservists and fortress troops permitted, but his center was still lightly held, and his left hardly held at all. The Ninth Army commander counted on at least five days to get into position, six or seven if possible. He received only three.

Indeed, so lightly was Corap's left held that on the night of May

12, while von Kleist was making his decision, a handful of venturesome German infantry of Rommel's division at Houx, about thirteen miles south of Namur, had managed to cross like tightrope walkers on the tattered remains of an old dam. Once on the western shore they were sheltered from fire by the steep bank of the gorge through which the river flows at that point. A few others were able to join them by crossing in rubber boats, but only after heavy losses. When at daylight of May 13 defending artillery and machine guns checked further progress, Rommel himself pushed forward under fire to the east bank and ordered up some medium tanks, whose guns engaged the defending machine gunners sufficiently to make crossing again possible. By nightfall the German bridgehead was more than a mile deep but less than two. One of Corap's active infantry divisions reached the neighborhood shortly before dark, but only by advancing sixty miles in fifty-two hours of almost continuous marching, so that it was physically impossible for them to attack at once—the men must have fallen and slept like logs where they stood.

While von Kleist's right was crossing at Houx his center had been repulsed in one attempted crossing, but had barely succeeded in reaching the west bank at Monthermé about thirteen air miles downriver from Sedan. The evening of May 12, however, found the German bridgehead there less than a mile deep, with the French lines still intact and no chance yet to throw a bridge.

The major German success of May 13 was on the left in the Sedan sector. There from noon until four o'clock successive squadrons of dive bombers pounded an area of some two square miles on the left bank, scoring few casualties but unnerving the defenders by the terrifying scream of their dives and the loud concussion of their bombs. Even some French reserve officers ran away. At four fire was opened by all available German artillery, much of it antitank guns and antiaircraft pieces firing horizontally. Then the German assault detachments launched their rubber boats and paddled forward. Their losses were heavy, for by no means all of the French had run away, but little by little they got men ashore, and once ashore the high military quality of the assailants, all elite troops, began to get the better of the middle-aged French reservists. By five-thirty a German temporary bridge was started, by six-thirty a sixteen-ton ferry towed by a little motorboat was working, by eight



o'clock Guderian's bridgehead was three miles deep, and soon after midnight the bridge was finished.

On the face of the matter, the invaders were not yet in the clear. Every soldier knows the difference between achieving a bridgehead and enlarging that bridgehead enough to get elbow room and advance. At nightfall on May 13 the Germans still held only three narrow footholds beyond the Meuse, and it remained to be seen whether the French lines, still intact around each bridgehead, could be broken. If so, then—given the German plane-tank superiority—the campaign would be decided. German energy, courage, and skill were sufficient. At Monthermé on May 14 the French fought all day, and no bridge strong enough to support a tank could be finished until after dark. Nevertheless, through May 14 and 15 the Germans were able to advance in every bridgehead, and by the night of the fifteenth, only the sixth day of the operation, all three bridgeheads could be considered safe. From then on all was plain sailing.

Effective French counterattack was out of the question for want of means. A single and partial French success, of no general effect and serving only to show what the French could do when on anything like even terms, was gained on the southeastern flank of the Sedan bridgehead. There a French armored division and an active infantry division were available. They counterattacked so persistently that there alone the rising flood of the invasion was checked. Another French armored division ignominiously ran out of gasoline west of Houx. The third was hopelessly paralyzed by being split up into fragments for the passive defense of a canal.

Accordingly, from the morning of May 16, the seventh day of the operation, the Germans had the game in their hands. Although Corap had made fewer errors than French General Headquarters, his Ninth Army was dissolved by the speed of the westward-flowing German tide. It was cut into bewildered fragments ignorant of the fast-changing situation, bombed from the air and infiltrated from all sides, swamped and swept away. The only remaining questions were whether the energy of the German Command, the endurance of their troops, and the maintenance organization of their tanks could hold out. As far as the Allied armies were concerned, there was nothing to stop them, because the Allied weakness in the air and in mobile ground troops made it impossible to

plug the hole where Corap's army had been. In the practically undefended Allied rear areas the German armored divisions could go where they chose. It was soon apparent that they were going westward toward the sea, closely followed by motorized infantry divisions, and these in turn followed by ordinary divisions making forced marches. In this direction no natural obstacles barred their path, for they were, in general, following the low and easy watershed between the streams flowing into the Channel and those which empty into the North Sea.

Throughout the third week in May newspapers talked of "the battle of the bulge," meaning the bulge which the Germans had driven into the Allied line, but there was no such battle. The Germans rushed on practically unopposed. On May 21 their armor reached tidewater, cutting off the Belgian Army, the British Expeditionary Force, and those French troops which had originally advanced into Belgium. The invaders then turned northward and dashed up the coast into the rear areas of their trapped victims, seeking to cut them off from their remaining access to the sea.

During the last ten days of May, by 1914-18 standards the trace of the "front," roughly shown on the map on the following pages, was absurd. According to the point of view, the situation was either a farce or a nightmare. Instead of the flattish segment of a circle or at least the blunt triangle formed by the penetrations of the last war, the new salient which the Germans now thrust forward was like a bulb supported only by a stalk thinner than itself. By the precedents of twenty years ago, such a monstrosity should have been promptly pinched out, trapping its occupants. Instead, even when its stalk was a little narrowed by such weak counterattacks as the Allies were able to deliver, still the amazing bulb continued to swell like a fantastic plant in a movie.

On May 28, the nineteenth day of the operation, the Belgian Army surrendered. The northern French units and the British, their communications cut by the German salient and themselves already short of supplies and especially of munitions, must now retreat by sea through Dunkirk, the one possible avenue of escape left to them.

Although on the map such a position looks hopeless, at this point another unprecedented turn of fortune characteristic of the new mobility swung the balance somewhat to the side of the Allies. Al-



Monday, May 20

Nazis turn drive toward Channel ports, capture Laon, push on to Tournai



Tuesday, May 21

Nazis near coast at Abbeville, take Amiens and Arras, splitting Allies



Wednesday, May 22

Allies recapture Arras; Germans drive north along Channel coast



Thursday, May 23

Battle at Boulogne; Nazis advance on Calais; Allies reach Cambrai

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Friday, May 24

Allies narrow German corridor; London admits the fall of Boulogne



Saturday, May 25

Calais threatened; Nazis take Ghent; Allies push against Nazi corridor



Sunday, May 26

Nazis make new gains in drive on Lille; their claim to Calais denied



Monday, May 27

Nazis trying to close trap on Allies near Lille; battle lines little changed

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THE BULGE AND DUNKIRK

though the trapped elements lost all their heavy matériel and many if not most of their rifles and machine guns, nevertheless by June 27 75 per cent of them escaped.

Aside from the fact that the Dunkirk area, with its abundant antitank dikes and canals, had been admirably fortified by the French admirals who had commanded there since the beginning of the war, the reason for so astonishingly successful an evacuation was a change in the balance of air power. By air Dunkirk is about 170 miles from the nearest German soil, and the Belgians in their retreat had systematically disabled their own airfields. Accordingly the German pursuit planes could no longer cover their bombers—now trying to prevent the Allied embarkation—against the attacks of Allied pursuit planes. On the other hand, the strong British pursuit squadrons, most of which had been held on the island, could now operate over Dunkirk from bases not much over forty miles away in southeast England. Thick weather also hindered German dive bombing and a calm sea favored the British rescuing boats. The somewhat intemperate rejoicing in the English press over what was, after all, only the partial escape of a hunted force should not blind us to the truth that a much more complete disaster might reasonably have been feared.

The moonstruck idea that the Germans might have invaded England early in June, 1940, will be dealt with in the next chapter.

The final French phase need not long detain us. Ninety thousand of the best French troops together with nine of the original ten British divisions, although safely evacuated through Dunkirk, could not be immediately re-equipped. For the moment Weygand, the new French commander in chief, had only forty-three divisions of infantry, three of cavalry, and three improvised divisions of armored troops between the west end of the Maginot Line and the sea. He organized a new system of defense in depth, based upon a series of strong points designed for all-around defense, in the hope of cutting off the German tank spearheads from the infantry following them. With his numerical weakness, however, his chief hope was that the Germans would be too weakened to attack for some time. Instead they struck hard and promptly on June 5, leading with their right as before. On the ninth they aimed their main blow, again as before, against the French center, which now stood behind the Aisne. By the beginning of the tenth, after what the

Germans called the hardest fighting of the war, a famous Brandenburg corps had gained a small bridgehead south of the river near Château-Porcien. From this the last of the great German mechanized thrusts was launched, headed southeast toward Switzerland. By June 10 the *Panzer* troops were at Châlons-sur-Marne forty miles forward. Organized French resistance to them now ceased, and they rushed forward, again following watersheds, toward the Swiss border, 180 miles from Château-Porcien. They reached that border on June 17. This cut off the Maginot Line with its garrisons and what was left of their supporting troops.

Already by June 12 the French forces west of the Maginot Line had been reduced from forty-nine to twenty-four divisions, and these were worn out with fatiguing retreats, constant air bombing and fighting, and loss of sleep.

The end of the Third Republic was inglorious. Its leftist Popular Front had so divided the country that there was no last-ditch fighting spirit. Threats of wholesale, legalized robbery under the high-sounding name of "social reform" had made property owners wonder whether the Germans could be much worse than their own politicians, while the Communist party line favored Germany as the ally of the Soviet. Unlike gallant Warsaw, Paris was declared an open city and tamely surrendered. The government, which had solemnly bound itself to England by promising to make no separate peace, could have continued the war from North Africa, but instead it too surrendered on June 22. In justice to the French defeatists, we must remember the extreme localism of thought and feeling characteristic of many if not most continental European peoples. There may have been something in the idea that those left behind would repudiate a refugee government in Africa as deserters from their country.

Hitler, the German man of the people, conspicuously disregarded the dignity and outward courtesy once characteristic of the heads of states. He added to the humiliation of the conquered French by forcing their representatives to sign the new armistice in the same place and the same railroad car in which the armistice of 1918 had been signed—it had been preserved there as a relic. Afterward he had himself photographed skipping about in a little jig.

Greater decorum in celebrating what was destined to be the greatest of his almost bloodless triumphs might have seemed less of a defiance to fortune.

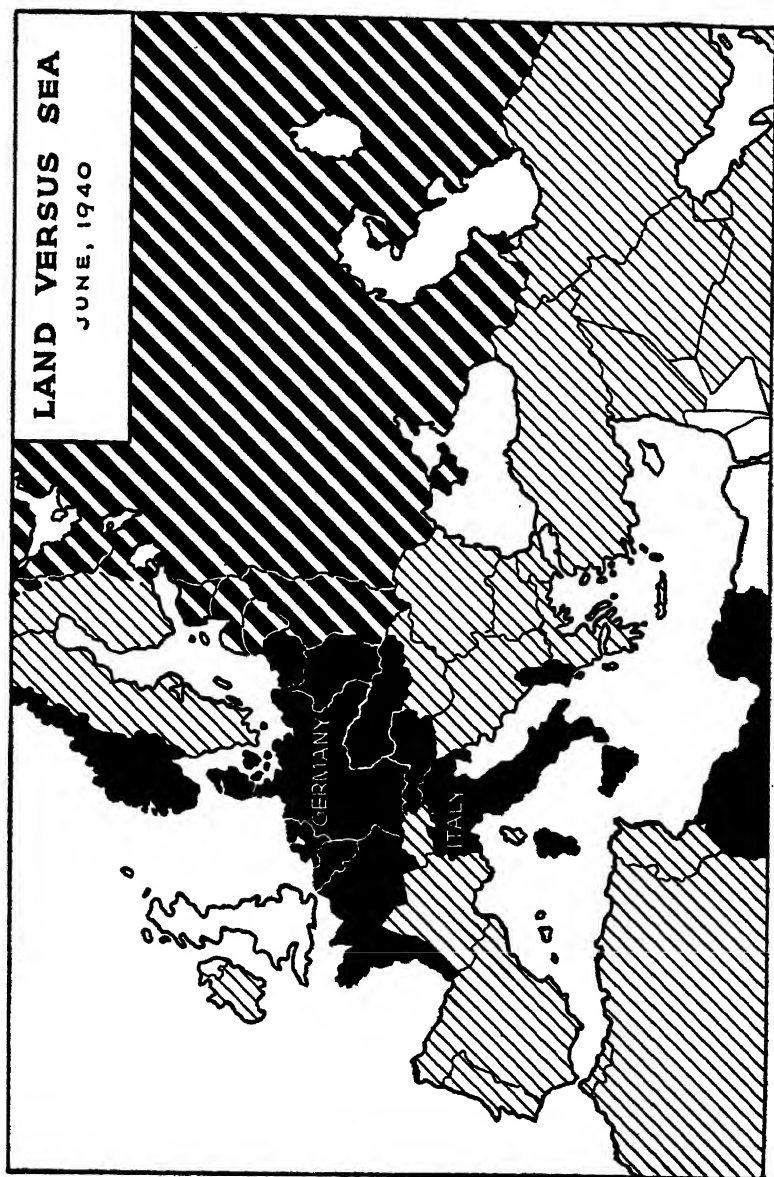
V. LONDON, MOSCOW, AND PEARL HARBOR

THE eighteen months from June 22, 1940, to December 7, 1941, saw the first German defeat in the air battle of Britain, then a series of minor German lightning victories, next a political transformation of the conflict by a German invasion of the Soviet Union which fell short of complete success, and finally a second political transformation by the entrance of Japan and the United States into the general war.

The French surrender gave the Reich control of the Atlantic coast of Europe from northern Norway to the Spanish border, an air distance of something more than 1,800 sea miles and about 2,000 land miles. Of the three original Allies, England alone remained in arms, supported only by exiles from the conquered countries. The indomitable Poles had built up a small but appreciable fighting force. The large Danish and Norwegian merchant fleets were at England's disposition. The Belgian and especially the Dutch governments in exile controlled economically important colonial areas, as did a French resistance movement in exile under General de Gaulle. De Gaulle's followers held French Equatorial Africa and New Caledonia in the southwest Pacific, while the French government which had surrendered held French North and West Africa, Syria, Indo-China, and the French West Indies.

Strategically the war had now become a duel between German land power and English sea power, both of course supported from the air.

In that duel Germany, now joined by Italy, held the initiative. The Axis and Axis-occupied European territories formed a solid Continental block which the English could not seriously molest. Although the Germans could reach Norway only by crossing water, that crossing could hardly be interfered with. In their weakness, for the moment the English could not even attack the overseas Italian colonies in Tripoli and Ethiopia. They must content themselves with defending their home island and the overseas shipping in which they imported food and exported such goods as they now could in order to pay for at least a part of that food and of their other imports. The unfavorable economic balance must be made up



by gradually selling their vast foreign investments. Also, they must hold as best they could those of their overseas possessions which might be attacked by the Axis and which were at the same time strategically valuable either in helping them to control overseas communications or to deny those communications to their Continental enemies.

On the other hand the Germans, together with their jackal, Italy, might have made peace with France, evacuating that country and releasing their million and a half French prisoners. They could then have demobilized most of their army and concentrated upon the economic development of their newly won Polish province, together with southeastern Europe, which was open to them, leaving in the field only German armed forces sufficient to man the frontier against the Soviet and to deal with whatever little raids England might attempt. The hitch in that would have been that to some extent they would have had to trust the French. Their actions do not seem to show that they ever considered such a policy.

Somewhat more actively, the Prussianized Germans might have contented themselves with waging a naval war of attrition against England, hoping to wear down that island by putting most of their own energy into building and manning submarines, long-range, ocean-going planes, and surface ships. For this the possession of the French Channel and Atlantic coasts would have been essential, so that they would have had to remain at least nominally at war with France. Even in that case, however, they might have demobilized considerably.

Most actively of all, they might try for a quick decision over England by invading that island as soon as they judged such a thing practicable.

What the Germans actually did in the summer of 1940 after the fall of France and in the early autumn of that year suggests a mixture of attrition and attempted invasion. It is as if the German Air Command had said: "Let us attack England and beat down the Royal Air Force. After that we believe that we can either make the English surrender by air bombardment alone or make invasion possible. In any case we shall certainly do much damage, for the island is the most promising civilian target in the world, and that damage will greatly forward attrition by sea, especially by bombarding ports, warehouses, and factories." To this the German Highest Com-

mand seems to have replied: "Very well, go ahead. The thing is certainly worth trying. But see that you do not lose too many planes. If you seem in a fair way to do so, we will call a halt and try something else." In other words, the German air attack on England in 1940 does not look like an all-out, neck-or-nothing bid for a decision. Its repeated changes of objective and method look more like a tentative operation whose immediate commanders had been expressly forbidden to risk more than so much.

The advantages of invasion, from the point of view of the Germans, are obvious. If it were successful, they would have killed the cat. The English government and fleet might have escaped and carried on the war at sea from, say, Canada, but the Axis' position in Europe would have been secure. Moreover a comparatively small part of the great German Army, if it could land in England and keep its communications open, could do the trick, because of the weakness in English equipment for ground troops at that time.

The extent of that weakness has been variously stated. It was certainly very great. The men of the British Expeditionary Force who had been brought back from Dunkirk had been able to bring with them only their rifles and a few light machine guns. All their tanks and heavy weapons had been lost. Eight hundred thousand soldiers were in training on the island, and for them there were 300,000 rifles which were considered serviceable. The available field guns have been put as low as 200 and as high as 2,000; the higher figure seems better attested. If we accept it, then there were just enough rifles—without reserve stocks—for twenty-five and guns for twenty-six British divisions of the 1914 organization. In fact, the position as to guns was really much worse, for nearly all were obsolete, and most of those of recent pattern had been badly worn by practice firing. The fully serviceable new pieces have been put as low as 200. Some which would have had to be used have been described as museum pieces. Not to speak of the new, third-line formations of conscripts, some old second-line Territorial Field Artillery units—corresponding to those of our National Guard—were rushed to exposed positions while armed with guns still marked, "For training purposes only. On no account to be fired." Others had no guns at all. There was also a serious shortage both of rifle and of field-artillery ammunition. Except for ammunition, the position as to machine guns was somewhat better. There were 38,000 of them: 8,000

of recent pattern, and the rest still serviceable. Of the 600 antitank guns, many were obsolete, and the new ones only light two-pounders. Out of 1,000 existing tanks, those available for action have been estimated at less than 50 and were certainly less than 200. Even these were armed with nothing heavier than two-pounders. The rest were relics of the last war, hardly more than training machines.

Such a condition in an industrialized great power which had been at war for more than nine months is almost unbelievable. Even after full allowance for British confidence in the French Army and in the defensive theory of war—which had been so strained by the Allied advance into Belgium—still the leisureliness of the thing is astonishing.

Moreover, the Germans certainly had a good general knowledge of the critical shortages, if only from their agents in America who had access to the newspapers there.

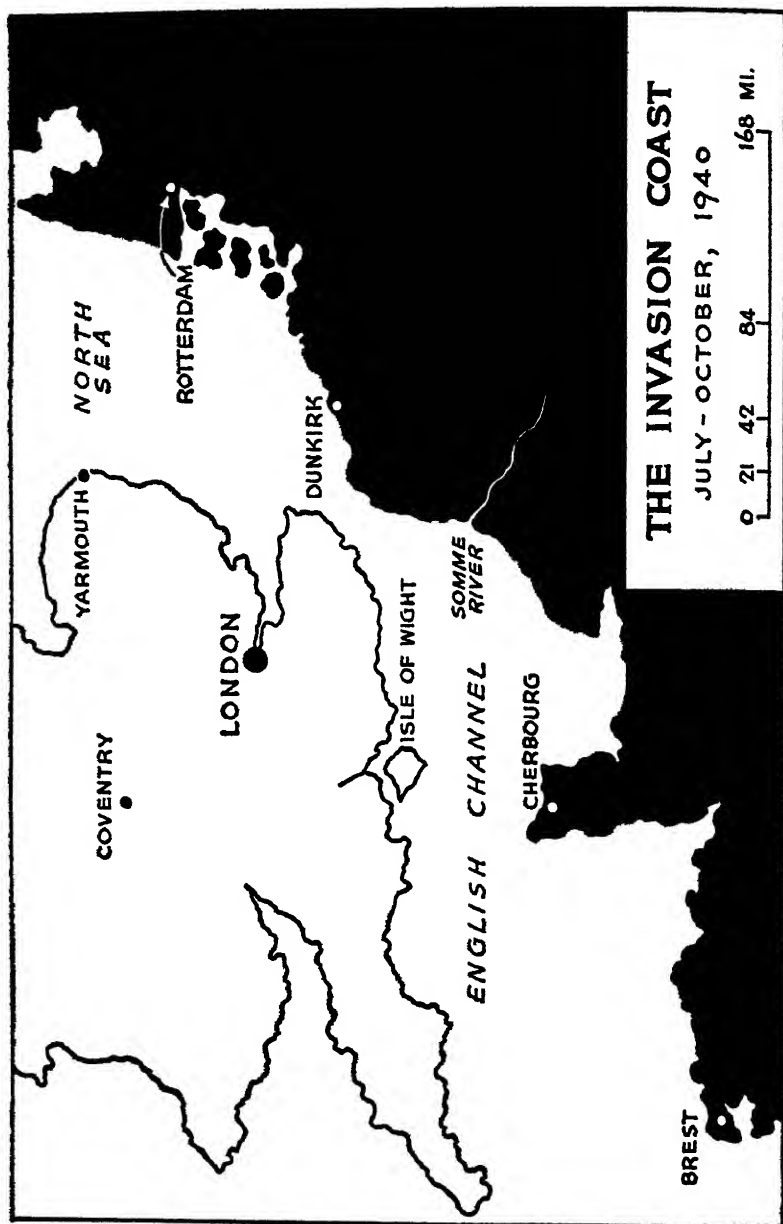
The acute English weakness on the ground in June, 1940, together with the German check which actually followed, has tempted many commentators into saying that the Germans should have invaded immediately after the French surrender of June 22 or even immediately after the end of the Dunkirk evacuation in the opening days of that month. They should, it is often maintained, have rushed troops on board every sort of boat that could make the crossing, and thrown those troops pell-mell into England under air cover and regardless of losses, trusting to get enough men and equipment ashore to beat down the ill-armed defenders. More than two years afterward, in Parliament on October 31, 1942, no less a man than the British Prime Minister, Winston Churchill—of whom more in a moment—said: "I have often asked myself what would have happened in 1940 if he [Hitler] had. . . put three quarters of a million men on . . . all the barges and boats and let them stream across and taken the chance of losing three quarters of them. There would have been a terrible shambles in this country, because we had hardly a weapon."

While respecting Mr. Churchill's experience and long study of war, and while fervently admiring his magnificently combative spirit, we must realize that he is not infallible as a strategist, particularly with regard to amphibious operations, as the Gallipoli fiasco proved in the last war. He is also an orator, and in the present case

he may have spoken rhetorically, without fully considering the actual German difficulties. Nor did he specify any date, saying merely "in 1940."

What would have happened had the Germans acted differently can, of course, never be known. What we can usefully do, however, is to estimate the real situation with which they were faced. As soon as we do so we cannot help seeing that an "immediate" invasion of England either just after Dunkirk or the French surrender is nonsense. No one who has ever had the smallest share in planning large operations or is experienced in the handling of moderate-sized ships and boats, least of all anyone who knows the English Channel, can take it seriously.

First of all, in the early and critical stages of invasion the Germans were practically barred from using large ships, which would be admirable targets for British bombers and for the British Navy. Except for the trickle of men and matériel which they might land from the air, they, like the would-be invaders of England in the eighteenth and nineteenth centuries, must rely for their transport upon barges, small, sea-going coasting vessels, often flat-bottomed in order to carry more tonnage without drawing too much water, seldom large enough to carry more than three hundred or four hundred tons or faster than eight knots an hour. The reasons for depending almost wholly upon barges can hardly be better summarized than by that eminent authority upon war, Admiral Sir Herbert Richmond, in his *Invasion of Britain*: "With such craft the risks are spread, the actual operation of landing presents the least difficulties and can be effected most expeditiously, and the vessels, armed with guns in their bows, can give some cover to the troops as they disembark. The number of men that can be taken in deep-water vessels is less, tonnage is less easily assembled, the voyages from the deep-water ports are longer, the loss of any single ship more serious, and the troops have to be transhipped into some form of lighter for landing, involving more time." With any sort of craft time is lost, risks increased, and the effectiveness of air support lessened as the voyage lengthens. With slow-moving barges the invasion coast runs only from Rotterdam to Cherbourg on the Continent and from Yarmouth to somewhat west of the Isle of Wight in England. Beyond this zone distances quickly become prohibitive.



Immediately after Dunkirk only about half of the Continental "invasion coast" and of the ports suitable for barges were in German hands. The remainder west from the mouth of the Somme was still held by the French. Moreover, Holland and Belgium had just been fought over. Accordingly, even if the Germans had then possessed enough suitably manned barges all ready to carry a sufficient striking force, it would have taken them some time to bring them to such embarkation points as they already possessed. The Dutch and Belgian canals must have been somewhat disorganized. Coastal navigation would have been interfered with by both the British Navy and the RAF, while the RAF could have also harassed the necessarily slow and constricted navigation of canals. Could the barges have been brought into position and the troops embarked, their invasion voyage to English ports west of Dover would have been cramped by the necessity for passing through the narrows of the Channel. Actually, suitable craft, competently manned, were almost certainly unobtainable in a hurry and in sufficient numbers. They must be power driven, for the voyage under sail would be uncertain, and many European fishing boats and small coasters still depend wholly upon sail. To tow them would increase both the vulnerability of the expedition while crossing and the difficulty of landing. They must be seaworthy. Mere canal boats would not do, for the North Sea and the Channel can be lumpy even in summer. Moreover, the handling of such boats in the strong sixteen-foot tides of those waters is a fine art. Even after the fall of France the British officially estimated the available number of self-propelled invasion barges at around three thousand. No doubt a considerable number could have been assembled before Dunkirk by a preliminary German effort, but beforehand the Germans could not tell how much success their land offensive would have.

After the French surrender the conquerors had indeed doubled the number of their barge ports, but on the other hand, their soldiers and airmen needed rest.

At any time the enormous bulk and weight even of quite a small modern army would limit the number of troops and the amount of matériel which could be carried on the invasion barges. Here we touch the root of the matter. Only by sitting down with pencil and paper can those unaccustomed to such calculations begin to see the

massiveness of the undertaking. In October, 1917, when Russian resistance was at its last gasp, so Fuller tells us, the German amphibious operation against the Baltic island of Oesel, about fifty miles long by twenty-five wide, in the Gulf of Riga, numbered 60,000 sailors and soldiers carried in a naval and transport fleet amounting to much more than half a million tons. This, for a short voyage over a fully commanded sea, amounted to about nine tons per man. With mechanized troops like those with which the Germans had done so much of their work in the present war the tonnage per man would of course be much higher.

Fuller's *Machine Warfare* continues:

I took as my measure [for an invading force] 100,000 men divided into five mechanized divisions each of eight tank battalions and four of other units, each of the former equipped with forty-five machines, and sixty vehicles. In all I reckoned that each division would include 360 tanks, 250 motorcycles and 960 gun tractors, armored cars and vehicles, to which must be added at least an equivalent number of trucks for supply columns, ammunition columns, etc. In all, therefore, there will be 1,800 tanks and 9,600 vehicles of various kinds, without counting 1,250 motorcycles. And to take one item of supply only, for a seven days mobile campaign this 100,000 strong army will require 2,750,000 gallons of fuel.

Next turn to the problem of shipping. Leaving normal steamships out of account, what will such a force require in motor-driven or towed flat-bottomed boats or barges? Though the answer depends upon size, it also suggests that these vessels will not be of immense proportions, because it must be expected that many will be lost en route, and consequently the larger they are the greater will the loss be. Leaving out of account the men, who can travel with the vehicles, I will assume that a barge can carry either 6 tanks or 12 vehicles. Then the number of barges required will be 1,100, and when reserve and replacement stores, ammunition and gasoline, etc. are added, say—1,500.

In spite of German efficiency and thoroughness, to marshal such a fleet—and throughout my figures have been conservative—to embark the force in order of disembarkation, to move it across the sea—a tremendous target to air attack—at a speed of not more than eight knots in face of the most powerful navy in the world, is certainly a problem.

In fact, the distinguished English general greatly understates the German difficulties. Without dwelling closely on his estimates of a German armored division of 1940, which are somewhat high in men but low in tanks per division compared with American estimates, on his own Oesel ratio of nine tons per man a fleet of 1,500 barges averaging 350 tons each could have carried only about 58,000 men with 1917 equipment, while contemporary armored equipment and accessories are of course much heavier. Nor does he consider the difficulty of unloading the German tanks. His own idea of "mother ships" for tanks, i.e., craft capable of landing them on beaches, was worked out only much later by the Anglo-American services. As far as we know, the Germans of 1940 would have had to seize one or more ports and use derricks to get their tanks ashore—a slow, difficult business. Even if we admit his estimate for the armored divisions, on the Oesel ratio the remaining 1,500 German barges could have carried less than four full infantry-artillery divisions.

Dismissing Churchill's blood-curdling idea that the Germans might have embarked 750,000 men as involving too many large ships which would have been "sitting ducks," let us see what opposition a fleet of 3,000 barges with a total of more than a million tons, carrying four or more probably three armored and less than four infantry divisions, would have met, had it begun its voyage before the RAF had been knocked out by the German Air Force.

The invaders would have been opposed both by the British planes and by the destroyers and other light British naval craft, which we may call the flotilla as opposed to the battle fleet. As long as the German troops were using only barges, the larger British warships would have been held back, and not risked in narrow waters covered by German land-based planes, except as a desperate measure if the invasion seemed to be succeeding. The German surface flotilla could not compare with the British, and German submarines could have done little against the shoal-draught, fast British light craft. The large German naval vessels were too few to have greatly affected matters, except by a lucky fluke which could not be counted upon. Moreover, the numerically far inferior German Navy thought chiefly in terms of commerce destroying, in which those ships were invaluable.

Thus the German Air Force would have had to furnish practically all the cover around and over the huge, helpless mass of slow German barges against both the British flotilla and the RAF. Few if any guns mounted in the barges could have had either naval fire-control instruments or naval gun crews. The outnumbered German naval flotilla would have been promptly wiped out. Immediately after Dunkirk even air cover could not have been forthcoming before the thoroughly obstructed Belgian airfields had been cleared and re-equipped, which could not have been done overnight. At that, as we have just seen, it would have been available over only half of the "invasion zone." Once the German forces were committed to the second phase of the campaign of France, beginning on June 5 and ending June 22, it was clearly necessary to wait until sometime in July before the newly conquered French airports would have been available.

Assuming those airports, as well as those in Holland and Belgium, to have been reconditioned, what chance would the German Air Force have had of giving the necessary minimum of successful cover to a barge crossing before the RAF had been knocked out? This was the real question before the German Command. The answer is that an air force, even if greatly superior in numbers, is ill adapted to covering a vast, slow-moving, fully exposed mass of barges against another air force. I say "fully exposed" because fog, which would indeed have screened the armada, would also have made accurate navigation in such tidal currents impossible. In fine weather, in which alone such an operation can be undertaken, the covering planes must keep circling above the target, using up fuel and tiring their own crews, while the attacking planes have an almost unlimited choice of angles from which to approach. At best, therefore, the German airmen would have been unable to give their full attention to protecting the German barges against the British flotilla. Irrespective of the barges sunk or disabled by British planes, every British destroyer which got home could have sunk an almost indefinite number of the snail-like craft within a few minutes. Nor would the fast, maneuverable destroyers have been easy for the German planes to hit. The oil fuel of the barges, together with the gasoline for the German motor vehicles which they would have been carrying, would have produced considerable patches of "blazing sea," which the speedy British craft could have avoided.

In short, the chances are that any German attempt to invade in the teeth of the intact RAF would have resulted in a ghastly massacre of the would-be invaders.

Sir Herbert Richmond has likened the strategic importance of the RAF Fighter Command in 1940 to that of the British battle fleet off Brest in the old wars against France. Since that fleet could bring to battle any French heavy ships venturing into the Channel, the French troop-carrying barges of that time could have been covered only by a flotilla of light naval craft which the more heavily gunned British flotilla could defeat. Consequently, the French never tried to invade. Had they ever been able to deal with the British Brest fleet, the story would have been different. Similarly, the Germans of 1940 evidently felt that they must first deal with the RAF Fighter Command. While the Royal Navy and the English coast still possessed air cover, the game did not seem worth the candle.

The psychological factor may also have played a part. The great mass of Germans are landmen to whom the sea is an unknown and formidable thing. There may have been some symbolic truth in a contemporary cartoon called "The Water Hole," showing Hitler as a golfer somewhat hesitantly teeing up to drive across the Channel. We are all familiar with "mental hazards." There is also the great desirability of planning for large operations in detail, and for this sort of planning the German Staff is famous or, if you prefer, notorious. Nevertheless, in the present war the Germans have made so many extremely bold decisions that they would certainly have invaded promptly, we may be certain, had they thought that in general time was working against them, as in the particular matter of English ground equipment it obviously was.

On the other hand, the German chances of gaining air superiority seemed good, with all that that would have meant toward either wearing England down or invading her. Geographically the Germans had two advantages. From southwestern Norway to the western tip of France they now held territory which curved around Britain in a great arc of nearly a third of a circle, giving them easier air navigation by radio, abundant space for dispersion of airdromes, and in general the advantages of convergent as opposed to divergent action. The second geographical advantage of the Germans was that throughout about seven-eighths of their encircling arc of

territory they possessed a foreground or advanced zone of non-German land, within which they were comparatively indifferent to the fate of the populations subjected to air warfare.

Besides these geographical advantages they had an enormous numerical superiority, often stated as three German planes to one British. If we estimate the first-line German operational planes in service in July, 1940, at about 6,000, this would make the corresponding RAF machines about 2,000. How these 2,000 were divided between fighters and bombers is not publicly known. The figure of 1,200 British fighters has been published. Incidentally, this shows how feeble air forces then were as compared to navies, for no English government would have been so mad as to challenge a hostile fleet of tolerable quality and three times as large as the Royal Navy. Actually, as the Germans knew, their real superiority would prove to be less than their numerical ratio, because of the high quality of British aircraft and pilots and what were then the especially heavy batteries of the British fighters. The latter mounted no less than eight machine guns firing forward, and had a considerable choice in angle of attack through their superiority to bombers in speed and maneuverability, while the German bombers—necessarily larger targets, slower and less maneuverable than fighters—could fire only one or at most two guns astern. Nevertheless, in this first purely aerial campaign the Germans seemed to have excellent chances of beating down and wearing out the RAF by mere numbers. After that the Highest German Command could decide whether to invade or to go on bombing and blockading.

The theory of air warfare was then even more disputed than it is today, but insofar as the German air staff was influenced by the writings of Douhet, it may have exaggerated the comparative strength of an air offensive. That Italian general, the most systematic and the most widely read of pre-1939 air theorists, had believed that an air defensive had no chance.

For a little more than six weeks after the French surrender on June 22 the Germans energetically, and no doubt confidently, prepared for the coming air battle. During July and the first week in August small numbers of their bombers struck by day and night, especially against shipping and the harbors of the English south coast, but sporadically and without concentration. The German

mine laying by air in British estuaries and coastal waters was continued also, as indeed it had been since the beginning of the war.

Meanwhile, the English were strenuously preparing. If the wisdom of some of their emergency measures can be doubted, their unanimous determination to resist cannot. Such unity goes far to offset the disadvantages inseparable from the class government of aristocratic states. It speaks volumes for the gulfs of ignorance and misunderstanding between nations today that while the French expected England to be crushed—Weygand is reported to have said, "England will have her neck wrung like a chicken"—no English people except perhaps a few wealthy internationalists so much as considered surrender. An English comic paper published the following: An Englishman meeting a friend said: "Well, England's in the finals, anyway." To which his friend answered: "Yes, and playing at home, thank God."

The national determination was inspired by the rousing speeches of Winston Churchill, who had been made prime minister at the time of the German invasion of Norway. He is descended on his father's side from the dukes of Marlborough, while his mother was an American, born a Jerome of New York. His adventurous career of soldiering, journalism, and politics has been marked by ambition, high financial integrity, and a constant willingness to concede power rather than compromise principle. If the quality of his rhetoric is sometimes a little trying to non-English people, his splendid combativeness is beyond praise.

During July while Churchill was thundering defiance on the radio, the English defense was suddenly strengthened in a way which illustrates the immediate military advantages of sea power and banking power, together with the vast resources of the United States. Before August the 300,000 rifles in England had been supplemented by 500,000 from America, in addition to some American heavier weapons. Ammunition was still short, so that for the time being target practice for the huge Home Guard which was rapidly being organized had to be restricted. Moreover, the new weapons would be ineffective against air attack. Nevertheless, they went far toward strengthening the country against invasion. The Germans must of course have admitted the possibility of such additions to the defense.

For some time the RAF had also had a well-organized "warning net" of observers supplemented by what seems then to have been that very rare thing, a true secret weapon: radar. That mysterious electronic device permitted them to discover and plot the course of approaching planes. Douhet when predicting the success of bombing offensives probably did not allow for the effectiveness of radio location.

Such were the pieces on the chessboard in the summer of 1940. The main features of that chessboard are shown on the sketch on page 117. Britain is roughly a triangle about 320 air miles wide from east to west along its southern coast—say the distance from New York to Pittsburgh—and about 560 air miles from south to north. The critical distances are shown on page 132. Heavily industrialized, dependent upon imported food, and now encircled by German-occupied territory, the island is a promising civilian target for air attack, perhaps the most promising in the world. West of Britain is Ireland, most of which is now practically independent. As compared with its role during 1914–18, that independence handicapped England by depriving her of the use of the South Irish harbors, but as compared with Irish disposition in previous wars it benefitted her by removing the danger that invaders from the Continent landing in Ireland would be joined by local rebels. Though the Irish are anti-English they are not vehemently pro-German, and it has been rumored that the command of their little army had a full understanding with the local British command in Northern Ireland as to what should be done in case of German invasion of the Free State.

The first great German blow from the air fell upon England on August 8. Thereafter until the end of October, if we allow generously for overlapping, we may distinguish four phases.

In the first of these from August 8 to 18, ten days, the *Luftwaffe* very logically began with attacks on shipping off southern and southeastern England, together with the neighboring harbors, harbor towns, and fighter airdromes. For the Germans it was advantageous to attack shipping, among other reasons because RAF pilots shot down over the sea could not parachute safely. Nevertheless, the surface damage done in this first phase was dearly bought. According to official British reports said to be conservative, 697 German planes were shot down and only 153 British, a proportion of just over four and one-half to one. Moreover, sixty British pilots

parachuted safely, although some of them were wounded. Thus, assuming half of these sixty to have been permanent casualties, the respective losses in pilots were at least 697 Germans to 123 British, a proportion of five and two-thirds to one. The true proportions were even more favorable to the British in both planes and pilots, for they counted German planes as lost only when seen to crash, omitting the badly wounded craft whose destruction on their homeward voyages could not be observed.

There followed a second phase from August 19 to September 6, nineteen days, including a pause of five days followed by a fortnight of German activity directed chiefly against new objectives. Either the German Command now thought that the surface targets of their first phase had been sufficiently shattered, or else they hoped to inflict damage elsewhere at less cost to themselves. At all events, they shifted the weight of their attack to fighter airdromes farther inland than those previously the objects of their attention. Occasionally, as the British account puts it, "they did not disdain" purely residential districts, and from time to time they returned to the charge against coastal areas. Nevertheless, the shift was marked, and was, furthermore, a logical extension of the original aim of destroying the RAF. That aim, however, was as far from being reached as before. The ratio of planes lost—601 German to 229 British—did indeed fall to just under two and two-thirds to one, but on the other hand 138 British pilots were saved, so that the ratio of pilots lost rose to the formidable height of practically seven to one.

By the first week in September the German Command may have felt that their losses were becoming serious. At least 1,300 of their planes and crews had gone, probably a good many more, perhaps about a quarter of their original strength, while the RAF was still in the air; although the British Fighter Command had lost 382 planes, amounting to nearly a third of its original numbers. But the replacement rate of British fighter machines was high. The Germans may have thought that the RAF Fighter Command was nearer to being worn down than was really the case. At all events, they well knew that battles, in Foch's phrase, are won in the last fifteen minutes.

The third phase of four weeks, from September 7 to October 5, saw another change of objective. The attack was now centered on

the vast mass of London with, if anything, a preference for the considerable area of the London docks. Damage on the ground was of course inflicted, with consequent civilian suffering, especially from fires. Incidentally, in London where there is no heavy frost, gas and water mains run fairly close to the surface, so that they can be broken by comparatively small bombs. There was no panic, however. Meanwhile, the Germans lost at least 883 planes, bringing their total loss to an ascertained minimum of 2,181. The present writer has seen no statement of the total British losses throughout this phase, but reports covering large parts of it give ratios of pilot losses running between six and one-half and seven and one-half Germans to one of the RAF.

The end of the third phase on October 5 marked a climax or turning point. Recently the British had begun to note occasional signs of weakening in the remarkably high morale of the German airmen. If the German Air Command still wished to go all out, then the Highest German Command must have insisted that the limit of permissible losses was near. At all events, large daylight attacks by German bombers which had been designed as such now ceased.

In October, with the coming of the autumn gales, the possibility of invasion also disappeared. The 3,000 barges collected from Amsterdam to Cherbourg had indeed been seen moving into positions of readiness at the start of a number of the heavy German air attacks on England. The British Bomber Command had persistently gone for them, without claiming great results. One of the German embarkation drills, roughly handled by RAF bombers, may have started the rumors of "the blazing sea." Except for such drills, the barge armada never sailed.

Even though forced in one way or another to moderate its tempo, the German Air Force by no means gave up the attack on England. From October 6 to 31, twenty-five days, the air campaign went through a fourth and last phase. Bombers designed as such now dropped their missiles on London only by night. Fighters carrying a few light bombs tried to do so by day, often from very great heights. Other than the obvious satisfaction of doing at least some damage instead of openly admitting defeat, what was hoped for from these methods is not clear. While no one, flying over the wide expanse of London, roughly a circle of at least twelve miles in diameter, could possibly miss so huge a target, little could be expected

from haphazard bomb dropping. An astonishing amount of space in any great city, 40 per cent it has been said, is militarily "dead ground"—wide streets, parks, squares, vacant lots especially toward the suburbs, rivers and ponds, etc.—in which a few hits do no appreciable damage. Indeed, except for a few comparatively small spots such as railway terminals and electric power stations, a metropolis like London is too big to be more than stung by explosives dropped on it, still less by the feeble methods to which the Germans were now driven. They may have hoped even now to tire out the RAF fighters by sending their own makeshift "fighter bombers" over very high and by making much use of cloud cover. Other than that, they can hardly have still been thinking in terms of decisive strategy, only in terms of harassment and diversion. Be that as it may, this last game of theirs did not long seem to them worth the candle. Their losses as known to the English in this fourth phase were probably far smaller in proportion to their real losses than before, both in the day fighting at high altitudes and at night. English losses during this period have not been published, but apparently they lost pilots only at the rate of a little over one to four. The Germans are known to have lost 194 planes, making a known total of 2,375 during the eighty-five days from August 7 to October 31. Adding to this about 250 shot down by antiaircraft guns gives a grand total of 2,625. A further addition of only 375 "probables"—a conservative guess—brings up the German losses to about half of their first-line air establishment at the beginning of August, 1940. German replacements are said to have kept the actual numbers about level.

Even after November 1 the German Air Force kept up a certain amount of night bombing, but of too scattered and inaccurate a sort for major effect. In mid-November the first concentrations of night bombers upon a single objective, the industrial city of Coventry, hit the center of the town hard but left the factories in the suburbs with their attendant workmen's dwellings almost untouched. Apparently by January the severe operational losses which resulted from the normally bad weather of the season at last led the German Command to call a halt.

Returning for a moment to the German decision to break off large-scale daylight attacks after October 5, it is possible to believe that had they persevered they might have won by wearing down

the physical endurance of the RAF fighter pilots. The many rumors that the latter were approaching the limits of their strength are only too well supported by the nature of the campaign, the great German superiority in numbers, and the severe strain of operating a fighter. The high training of the RAF fighter pilots was of course a chief British asset, and while the manufacture of machines can be hastened, such training cannot. Throughout military history the providing of replacements who will not too greatly bring down the quality of a military elite has always been most difficult. In the present case, since the Germans went all out for about two months, the British fighters had to follow suit. Further, the training of British air replacements was handicapped because their small island had no areas out of reach of possible hostile action.

On the other hand, the Germans, although they could replace pilots more easily than the British, cannot have found replacement wholly easy. While the average training of their pilots was perhaps not so long as in the RAF, still the *Luftwaffe* was a high-quality force in which the training of acceptable replacements took time. Also, the moral strain upon assailants who must accept heavy losses at the hands of defenders who as yet show no sign of weakening is extremely severe. No matter how brave they may be, there is a limit to moral endurance as there is to physical endurance. The combined physical and moral strain of mechanized combat either in the air or on the ground, together with the rapid wastage of machines, led the present writer in *Can We Limit War?*, published in 1934, to note that neither tank nor air forces are well adapted to persistent attacks pushed home regardless of loss. Insofar as a single instance can support a general principle, the German decision to halt bears out that conclusion.

Around October 6 the German Highest Command may well have said to its air commanders: "You tell us that the RAF fighter pilots must be physically worn out, so that if you are allowed to continue you may still get a decision. You yourselves, however, have already found it desirable to change your methods and objectives so often that we begin to doubt whether, even if you continue to go all out, you can finish what you have begun. You admit that the hitherto admirable morale of your pilots is beginning to weaken, and no wonder. If the best infantry unit that ever was had suffered such losses as you report, that unit would have been worthless until after

a long rest. You told us, quoting Douhet, that in what you call pure air warfare the advantage must be with the offensive, but apparently Clausewitz' saying that the defensive is the stronger form of war has again been brilliantly illustrated by your results. If you go on losing so that air superiority passes to the English, that will be a nuisance. Halt, therefore."

Whether or not anything like this imaginary conversation took place, the air battle of Britain indeed reaffirmed the Clausewitzian principle.

From the breaking off of large daylight air attacks upon England early in November, 1940, until late in June, 1941, nearly eight months, there was no bid for an immediate decision and no land operation on the largest scale. England and the Axis waged a war of attrition at sea. They also conducted land operations in difficult outlying theaters with the object of gaining or maintaining sea command. Hence these operations often had more strategic importance than their size would indicate, and in them success or failure depended chiefly upon communications.

In the Atlantic, England continued to blockade Germany and the German-occupied countries, strictly rationing the remaining maritime neutrals, Sweden, Spain, and Portugal, so that overseas products useful to the German war effort might not get through. Without the steady pressure of the British fleet not only would that effort have been more powerful, but also the Germans and the other Continental peoples would have been far more comfortable. On the other hand, the Axis, although inconvenienced, was in no way crippled. With exceptions, notably in Greece, even the German-occupied countries had enough essential foods to prevent malnutrition.

Meanwhile, Germany continued her counterblockade of England by means of submarines, planes, and occasional surface raiders. We have seen how greatly the conquest of the whole Atlantic coast of the Continent had improved her position at sea. The fall of France may also have given the Germans a technical windfall, i.e., the secret of the asdic, the British submarine detecting device, the principle of which they had not previously understood. This device the British had shared with the French, from whom the Reich is said to have captured it. Even more serious at the moment was Brit-

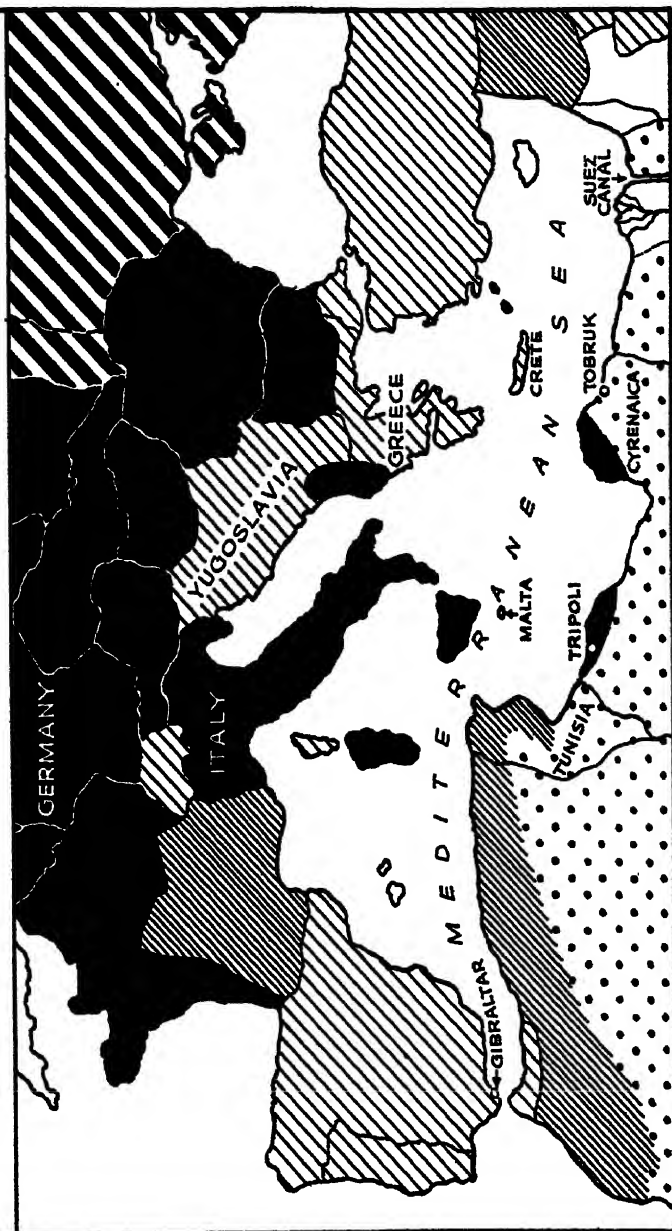
ain's shortage of naval vessels, most of all destroyers. We have seen that on September 1, 1939, she had had only 15 capital ships and 185 destroyers instead of the 42 dreadnoughts plus older battleships which she had had in 1915 and her 500 destroyers of November, 1918. For the defense of shipping numbers are essential. The necessary size of a battle fleet is relative to that of your enemy, but when you have 2,000 merchantmen at sea and 400 of them daily in the danger zone your naval craft must be in many places at once. Moreover, after the Norwegian and French campaigns no less than seventy British destroyers were laid up for repairs, most of them having been hit from the air, while a good many had been sunk. Consequently in June, 1940, monthly losses of merchant shipping jumped to nearly 400,000 tons. In spite of the fifty overage U. S. destroyers furnished by Roosevelt in September, until December the monthly average remained above 350,000 tons. Most of the ships involved were sunk by submarines, although considerable numbers were lost to air attack. German surface raiders were less effective than might have been expected.

Thanks to American aid and to a considerable effort of their own, involving greater hardships in the long run than those which their own blockade was inflicting on the Continent, the British survived. In fact, their production of armament and munitions actually rose during their air ordeal.

At the same time, the German air offensive, in spite of its complete failure to gain a decision, nevertheless achieved a substantial secondary effect. Not only did the bombing of ports and of shipping in coastal waters directly forward the German naval effort, but also all bombing of England, together with the threat of invasion, acted as a diversion. In other words, it compelled the English to expend on all sorts of purely defensive and remedial measures—Home Guards, antiaircraft guns and gunners, coast, air, and fire watchers, shelters and passive defenses, rescue and clean-up squads, and so on through a long list—money, materials, and manpower which could otherwise have been used either in maintaining Britain's menaced overseas communications or in offensive efforts outside of the island.

What might have happened had the Germans gone on harassing England from the air, doing as much damage as they could without serious loss to themselves, and meanwhile concentrating their war effort upon increasing their naval pressure upon England, we

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shall never know. If this idea occurred to them, they put it aside. Instead, their first moves after admitting defeat in the air over England seemed to show that they meant to attack British sea power by means of their land power wherever that land power could be brought to bear.

Westward they were held, but southward in the Mediterranean area geography—always a stern children's nurse to strategists, allowing them to play here and there but not everywhere, and sometimes a jailer—did not wholly deny them opportunity.

In the strategy of today the inland sea, so vast and full of terrors to our cultural ancestors in Homer's Greece, is a long, narrow lake. From Gibraltar to the Suez Canal is a voyage of just over 2,000 sea miles or nearly 2,400 land miles, about two-thirds of the distance from New York to Liverpool, while the Suez Canal is merely a big ditch dredged in the sand, the Strait of Gibraltar is only eight miles wide—a distance easily spanned by long-range artillery—and the Sicilian channel northeast of the jutting corner of Tunisia is only about eighty miles across.

The importance of the Mediterranean is not only that like all seas it is a highway and an obstacle. It is indeed a most important highway, the shortest sea passage between Atlantic Europe and the Indian Ocean, cutting the voyage between England and India to not much more than 6,000 sea miles, whereas the same voyage if made south around Africa is more than 10,000. Hence it is often called "the lifeline" of the widely scattered British Empire. The Isthmus of Suez is at the same time the land bridge between Asia and Africa. In addition to all this, the Mediterranean is a vestibule, in that the regions east and southeast of it are the approaches to the great oil deposits of Mesopotamia and southern Persia, which rank with those of Burma, the Dutch East Indies, and the Americas. From Mesopotamia two pipe lines run to the eastern Mediterranean shore.

In the days when a superior surface fleet was invincible out of gunshot of land, the English hold upon Gibraltar, Malta, and Egypt would have sufficed to keep open the inland sea to British traffic in wartime. From the end of the nineteenth century, coast artillery could at most have somewhat hindered British ships but could hardly have closed the Strait of Gibraltar. But planes have destroyed the omnipotence of surface fleets within flying range of

organized land bases, and have considerably reduced the importance of small bits of land like Gibraltar and Malta. Thus when Italy declared war upon the Allies in June, 1940, her position astride the central Mediterranean closed the western and central parts of that sea to British merchantmen. Italian planes based upon Sicily not only rendered Malta's harbor and docks useless as a naval base for large warships, but also made the passage between Gibraltar and Malta impossible to anything except warships together with strongly escorted convoys—and extremely hazardous even to them. Also, from the Italian possessions in North Africa overland attacks could be launched against the British in Egypt. Malta was indeed something of a threat to Axis trans-Mediterranean communications, but persistent air attack upon this little place could keep its offensive power down toward the vanishing point. In 1940 even the ability of the British to hold Malta defensively seemed doubtful. Moreover, the French surrender, although its terms did not permit the Axis to occupy French North Africa, made it difficult for the authorities there to prevent the use of French territorial waters by Axis shipping, which could be kept at some distance from Malta by steering from Sicily to the northeast corner of Tunisia and thence southward down the Tunisian coast.

Thus Malta became a distant and exposed outpost of the principal British position in the southeast Mediterranean. There the two chief British assets were their Mediterranean fleet and the North African desert. Had the seashore between Tripoli and Alexandria been a continuous strip of well-watered land, the Axis could have built up an overwhelming force in Tripolitania, and in the autumn of 1940 could have marched that force eastward almost at will. Had the quality and fighting spirit of the Italian Navy equaled that of the British Mediterranean fleet, that fleet could have been destroyed, and the Axis could then have landed troops wherever it desired. The Italians, however, although often capable of astonishing feats of individual courage, have for centuries had no great tradition either as soldiers or as men-of-warshipmen. Partly perhaps from policy—since their battle fleet was the one military asset in which they surpassed the Germans, and might therefore be a bargaining card or at least a point of prestige in Italo-German relations—they would not risk their battleships in a decisive action against the British. On land, however, they built up south of the Mediterranean so great a

numerical superiority, outnumbering the then tiny British army in Egypt by nearly five to one, that in mid-September, while the German air attack on England was still rising toward its peak, they advanced a short distance across the western desert boundary of Egypt.

Here, however, the large numbers of the Italians—nearly 150,000—their inexperience in desert warfare, and the real difficulties of supply in the desert combined to halt them.

Although French North Africa is well watered, between Tunisia and Alexandria the southern shore of the Mediterranean is an almost waterless desert except for two large oases, one centering around Tripoli, the other consisting of the blunt peninsula or hump of Cyrenaica. The only organized east and west communication was the coastal road built by the Italians. Because of the activities of the British Navy off Cyrenaica, most Axis supplies had to be landed in Tripoli and brought eastward along this road, first across about 120 miles of the Tripolitan oasis, then across 360 miles of desert, after that across 200 miles of the fertile Cyrenaican coast, and finally across another 200 miles of desert to the point where the Italians now stood east of the Egyptian frontier. Practically all water for the Italian Army had to be hauled across this last desert stretch. The British, on the other hand, had a railway which covered most of the ninety miles between what were now their advanced posts and the fertile Nile valley.

In October, while the Italians were still impotently halted and while the air battle of Britain was coming to a close, the Germans moved into Rumania, and without resistance made themselves masters of the agricultural wealth and the abundant oil production of that country. Hungary was already an ally of the Axis. Late in the month the Italians, undoubtedly with German knowledge and consent, made drastic demands upon Greece. When these were refused, Rome declared war and advanced its troops from Albania into Greek territory. Since no one would willingly begin a campaign in the Balkan Mountains in that season, the Axis leaders, like the Soviet leaders before their campaign in Finland during the previous winter, must have believed that their little victim would submit. Like the Finns, however, the Greeks fought, and successfully resisted the Italians. The Greek government allied itself with England; early in November British detachments landed on the Greek

mainland and a British garrison occupied the strategically important island of Crete. The British position in the eastern Mediterranean was thus improved.

About this time a bold decision of Churchill's, which can hardly be too much praised, began further to tilt the scales in England's favor. We have seen that the German air offensive against England was having a great diversionary effect, and also that the Germans had been threatening to invade. Invasion is, of course, the English nightmare. As late as March, 1918, the almost criminal weakness of Lloyd George was holding 140,000 surplus troops on the island, not to speak of 200,000 surplus civilian workmen whom the German advance in Picardy soon persuaded the British government to "comb out." Under the infinitely more trying circumstances of 1940, Churchill found the courage to go on entrusting the defense of the island chiefly to the Air Force, the Navy, and the Home Guard, sending by sea around Africa to Egypt an appreciable part of the British regular troops and especially planes and ground-force equipment as these became available. His studies of war had of course impressed upon him the need for economy of force. For instance, his scorn for the muddled strategy of the Austrians in August, 1914, by which a fifth of their strength was unable to join in the initial battles either against the Serbs or against the Russians, will be remembered by readers of his *Unknown War*. Still, it is one thing to know, another and a greater thing to do the risky thing which alone can bring a measure of success. The victory in the air over England, although a splendid feat of arms, was negative. It saved England but left the initiative with the Axis. It was largely because that victory was followed by Churchill's courageous economy of force that the little British army of the Nile was able to win an astonishing and strategically important success.

Churchill was admirably served by his commanders in the Near East, often recently and oddly renamed "the Middle East." Strengthened by the small reinforcements already arrived and still more by the knowledge that others were on their way, late in the autumn of 1940 the British in Egypt actually began to plan an offensive. The names of Cunningham, Wavell, and O'Connor should be remembered. Cunningham was the admiral of the British fleet in the Mediterranean whose dash was such that that sea was often called "Cunningham's pond." Wavell commanded the

little British armies in the Near East, and O'Connor was the field commander in the western desert. The British Army had the advantage of greater experience in desert fighting than that of any other major power. The original idea was only to surprise the fortified advanced posts, within which the Italians were somewhat spiritlessly remaining, by a sudden tank and motorized infantry thrust supported by naval and air bombardment.

The British reconnaissance was thorough, their security measures were such that the secret was perfectly kept, and the initial surprise was so complete that the operation presently developed into a conquest of all Cyrenaica. Even had the spirit of the Italians been high, their tanks were individually weak and few in numbers. The bold and rapid moves of the individually superior British tanks repeatedly surprised them, and dominated the operation. The British armor was impervious to the Italian antitank guns, and in two engagements Italian infantry enormously superior in numbers surrendered to it. Within two months of the first British move on December 7, 1940, exactly a year before Pearl Harbor, all Cyrenaica had been conquered. One hundred and forty thousand Italians were prisoners, while the casualties of the victors—as in the lightning German successes—were insignificant. The morale of the hard-pressed British people thus received a tonic.

At this point the Germans decided to take over most of the tasks hitherto unsuccessfully attempted by their Italian allies. German planes, newly based upon Malta, intensified the bombardment of that island. Incidentally, they also began viciously to attack Maltese civilians, whereas the Italian aviators who had previously been bombarding the place had tried, to their honor, to confine themselves to military objectives. At the same time the Germans, fully realizing that in a theater of difficult communications military quality alone counts for more than quantity, formed a small, picked Africa Corps, to be commanded by the energetic and skillful Rommel, whose name we have already noted in connection with the campaign of France. This corps, composed of only one light motorized division of infantry and two of armor, less than 45,000 men all told, was intensively trained on the sandy Baltic shore of Germany and under artificial conditions simulating those of the desert. Meanwhile, the German Staff, intending to strike Greece

from the north, began moving troops southeastward toward the Balkans.

I now digress briefly in order to anticipate events on Malta, probably the most bombed spot on earth. Its long resistance was due to both physical and moral considerations. On the physical side, the buildings of the island are even more exclusively of stone than in most other Mediterranean regions, so that there is little chance of fire, which is always potentially more formidable than aerial explosives with their limited radius of action. Further, the stone of Malta is peculiarly suited to the construction of deep underground shelters, for when freshly exposed it can be easily cut, although it soon toughens on contact with the air. Another physical point is that the fighter airstrips of the island were so large and so well connected that it was impossible for any single raid to make more than a small part of them unserviceable. Accordingly, defensive fighters could always take the air. On the moral side, the Maltese are a proverbially courageous people, accustomed to hardships and proud of their British connection. Something of the spirit of the attack and defense is contained in the story of a Maltese girl out fishing in a small sailboat. The fisher folk were accustomed to rescue Italian airmen who fell into the sea, but not German fliers, because the latter habitually machine-gunned their defenseless little boats. This particular girl had previously lost a near relative strafed by the Germans. Accordingly, when a downed German airman swam to her boat and grasped the gunwale, she chopped at his fingers with a large knife used for cleaning fish so that he fell back and was drowned.

Returning from this digression, we find that while O'Connor was conquering Cyrenaica the British diverted forces which might otherwise have joined Wavell to the unnecessary task of attacking the newly conquered Italian colony of Ethiopia, west of the southern entrance to the Red Sea. At most it would have been enough to push these unenterprising foes back somewhat from that sea passage. In the event the Ethiopian campaign dragged, locking up a certain number of British troops until late in November, '41—by which time much had happened in more important theaters elsewhere. The one thing gained by this wanton dissipation of force was the mere prestige of showing that England, even when alone, could conquer overseas territories which her land opponents could

not reinforce—as Pitt had done in the West Indies while Napoleon's armies ranged over the Continent.

Meanwhile, to strike Greece the Reich had to cross Yugoslavian and Bulgarian territory, and undoubtedly expected to do so without resistance. Bulgaria allowed free passage, and in Yugoslavia the government was about to do so when on March 27, 1941, a sudden political reversal put an anti-German government in power there.

The German preparations to attack Greece, together with the sudden anti-German political shift in Yugoslavia, compelled the authorities in London to make one of the most difficult and painful decisions imaginable. Their small ground and air forces in the Near East, already diminished by assigning to the unwise Ethiopian expedition units which might otherwise have reinforced them, might be enough to take Tripoli—where their presence would still cover Egypt—from the discouraged Italians. With Tripoli as a British naval and air base, Malta could be at least partially relieved. Any British force which could be landed in southeastern Europe would be a mere drop in the bucket of Continental war, and would also subtract from the British strength in Libya, thus risking disaster both north and south of the Mediterranean. On the other hand, all political considerations favored at least a token expeditionary force for Greece. Every one of the long list of previous British allies—Poland, Norway, Holland, Belgium, and France—had gone down. Now that fortune had raised up two new little southeastern European allies, for England to let them go without joining in their defense would seem cowardly in itself and would give a perfect opening for German propaganda. After all, Yugoslavia and Greece were exceptionally rugged countries inhabited by hardy fighting men. Accordingly, even a small British force might be able to hold a Continental foothold against Germans who would be acting at the end of long lines of communications. It was therefore decided to send a few British units to the Greek mainland.

Pardonable though this second division of comparatively small numbers may have been, coming as it did on top of the Ethiopian affair its result was merely to involve the little expeditionary force in a new series of German lightning victories.

Yugoslavia was overrun in only twelve days; mainland Greece—British contingent and all—in twenty-four. Yugoslavia was indeed an artificial and ill-cemented creation of the 1919 treaties, riddled

with factions, almost without industry, and ill supplied with planes and tanks. On the other hand, its population of sixteen million had been conscript since 1919, and its anti-German dominant group, the Serbs, had proved themselves excellent fighters during 1914-18. Greece was even weaker in planes and tanks, but had also fought well in the last war, and before the days of mechanized equipment its almost innumerable bays and rocky peninsulas would have given opportunity for amphibious warfare based upon the British fleet. Most of all, the mountains which covered the greater part of Yugoslavia and all of Greece are crossed by few roads.

Nevertheless, the German plane-tank team swept over those mountains with the same speed that they had shown on the Polish plains, amid the Norwegian snows, and across the French countryside. German planes again prepared the attack, combat engineers made what seemed impossible mountain trails into practicable passageways for tanks. Parachutists again confused the defense by suddenly dropping on the tops of fortresses and by seizing important points, especially the bridges over the Corinth Canal, the huge cut in the rock which separates southern Greece from the central and northern portions. The little British contingent, after losing heavily, was hustled back to its ships, the survivors re-embarking under a hail of bombs. About 45,000 out of the original 60,000 were saved.

Before the final surrender on the Greek mainland, the strategically unhappy division of the British Near Eastern forces helped to produce still another lightning German success south of the Mediterranean. Rommel with the German Africa Corps, crossing the desert east of Tripoli, rushed into Cyrenaica, swept away the outnumbered British units left to garrison the western border of that province, and within fifteen days had reached the Egyptian border. Unlike the previous British advance, this move was made without naval support and with numerically inferior air support. At that time, at least, the British planes proved unable to stop the German tanks. In Rommel's rear, however, the British still held the fortified harbor of Tobruk, Wavell correctly calculating that the Axis would not have sufficient numbers to mask that place and at the same time to advance into Egypt.

Meanwhile, after the loss of Cyrenaica except for Tobruk and after the surrender of mainland Greece on April 29, the British still possessed a valuable strategic asset in Crete, if indeed that island

could be held. In preairplane war there would have been no question about it, but now the local British weakness in the air and on the ground suggested some doubts. There were few British bombers and almost no fighters, while a large part of the British garrison consisted of ill-armed and discouraged men, landed there helter-skelter merely because the place was the nearest refuge from the latest disaster on the Continent. Nevertheless, the strategic position of Crete across the entrance to the Aegean Sea and in relation to Turkey was so important that it was decided to defend it.

The Germans now staged still another and even more original variant of lightning war, a wholly air-borne invasion. Any obstructions which may have been left on the numerous airdromes in central and southern Greece were cleared away. Moreover, the British in retreating from the mainland had not systematically demolished their equipment and stores, so that the Germans found themselves possessed of a substantial windfall of British trucks and aviation gasoline. About the middle of May an air bombardment of Crete, especially its two airfields, was begun. The insufficient and probably ill-protected anti-aircraft batteries were beaten down. On May 21 the Germans began landing parachutists, especially on or near the airfields. It then appeared that, although the British had held the island for more than six months, these fields had not been strongly fortified against such an attack. After five days of determined fighting, the Germans, constantly and most effectively supported from the air so that British troop movements could be made safely only at night, compelled the defenders to begin a retreat toward the south coast. Perhaps half of the garrison was successfully evacuated. During the ground fighting the British fleet had defeated two German attempts to invade in small boats, but at an admitted cost of no less than three cruisers, an anti-aircraft cruiser, and six destroyers. The remaining ships were therefore withdrawn from the waters north of the island.

Thus at the beginning of June, '41, the British position not only in the Near East but as a whole was discouraging. Strategically, there was no longer any need to fear invasion, although the fear of it naturally lingered in the public mind and was perhaps encouraged by British leaders in order to get the last ounce of war effort out of the people. On the other hand, in the Mediterranean the fruits of Churchill's admirable economy of force had been lost, so

that the British fleet was again faced with the possibility of being driven from that important inland sea. Britain's military numbers and armaments were indeed increasing, but what with the pressure which the Germans could put upon the vital overseas communications of the island, together with the superiority of Germany and her occupied territories in manpower, the British could hardly hope to turn the scales of war by themselves.

England's hopes of final victory, therefore, depended upon political developments, i.e., the entrance of new powers into the war. As in Napoleon's time, she was holding out, but her defensive strategy was more difficult and her offensive potential less than they had been against the Corsican. An anti-German coalition was therefore even more necessary to her than the anti-Napoleonic coalitions had been. There had been various rumors of German dissatisfaction with the Soviet Union but, as far as the public knew, nothing more. The United States was indeed openly moving toward war, but only very slowly, with many hesitations and against powerful opposition.

The specifically pro-British party in the United States consisted of three overlapping groups. First was a majority of the rich, especially along the Atlantic seaboard, who admire the English aristocratic constitution of society and government even though most of them strangely consent to call that government "democratic." The second group was that of the financiers and businessmen with English connections. The foregoing groups were much what they had been in 1916 but they were now joined by a third which had then been divided: the Jews. The latter with their great power over public opinion through the organs of propaganda, the press, the radio, and the movies, were now vehemently against Germany, where the National Socialist government in addition to breaking their power in that country had also persecuted them cruelly. The active pro-Britishers were backed by a general feeling of sympathy for England, based upon the community of language and the degree of similarity in law and in religion. The general American feeling against war as a monstrous reversal of the normal order of things was turned against Germany as an aggressor, and this feeling was of course sharpened by the German "political surprises," fifth columns, and other violations of the customs of war.

On the other side there was little sympathy for national socialism

but much desire to remain at peace and much dissatisfaction with the results of what seemed to many the useless victory of 1918.

Until the fall of France the pro-British and anti-German groups had been content to wish the Allies well, but after the French surrender their unwillingness to see England crushed was combined with the fears of farseeing men as to what might happen if Germany should break up the British Empire and unite Europe under herself. For propaganda purposes this concern for the balance of power and these very real fears as to a more or less distant future were caricatured into hobgoblins of an imminent German invasion of the United States if England should fall.

Amid these cross-currents of opinion the decisive factor was the President, Franklin Roosevelt. His policy toward Japan will be considered in the next chapter. Toward war with Germany he moved deftly and slowly but steadily, accompanying each step forward with protestations that his one desire was to defend the United States while remaining at peace.

Thus the half-million rifles and other weapons which we noted earlier in this chapter as arriving in England in July had been U. S. government stores remaining from 1917-18, and were released in early June immediately after Dunkirk by executive order. While this release was definitely unneutral, the Germans themselves had so often and so flagrantly violated the neutrality of others that they could hardly complain. This first step was rapidly followed by others, some to strengthen the U. S. armed forces, others directly to help England. In July, about a month after the French surrender, the President signed a bill for a large increase in the Navy, generally known as the "Two-Ocean Navy Bill." Late in August, while the German air attack on England increased in violence, the National Guard, volunteer second-line troops corresponding roughly to the British Territorials, was mobilized for a year's training. Some days later, as the German attack roared upward toward its climax, Roosevelt exchanged fifty overage U. S. destroyers for ninety-nine-year leases of a number of British naval and air bases or potential bases in the Americas. These ships, in spite of their age, were excellent antisubmarine craft. Later in the same month he signed the first bill in American history for compulsory military training and service in time of peace.

At the same time during the summer and early fall of 1940, Roo-

sevelt was a candidate for an unprecedented third term as president. In July in a message to Congress he said: "We will not send our men to take part in European wars." In September he made an even broader statement: "We will not participate in foreign wars, and we will not send our army, naval or air forces, to fight in foreign lands outside of the Americas except in case of attack." Late in October as the air battle of Britain drew to a close, he emphatically repeated his assurance in a speech at Boston as follows: "I have said this before, but I shall say it again, and again and again. Your boys are not going to be sent into any foreign wars. They are going into training to form a force so strong that, by its very existence, it will keep the threat of war far away from our shores. . . . The purpose of defense is defense." The war party excused these speeches on the ground that only by such tactics could he win his election and afterward get his war. Some who remembered the last war, however, noted that this crablike, sideways fashion of moving toward a great conflict was unlikely to reproduce the dash of the American infantry which had so impressed both friends and foes in 1918.

In March, '41, while the Greeks were still holding the Albanian border against the Italians and while the Serbs were hesitating over permitting the passage of German troops, the President took another long step forward by signing the Lend-Lease Bill, which authorized him to manufacture "or otherwise procure" defense articles, defined to mean practically everything, including agricultural commodities, and to "sell, transfer title to, lease, lend or otherwise dispose of them" to the government of any foreign country, the defense of which he deemed vital to the defense of the United States. From that point on the United States, in addition to its measures against the Japanese, was engaged in an undeclared war against the European Axis. From Lend-Lease to the convoying by the United States Navy of supplies to Britain would be a logical and hardly perceptible advance.

In early June, '41, as the United States still hesitated on the brink of full and open war, the press in the English-speaking countries was discussing how the Germans might next move toward Suez. The British had suppressed a movement hostile to themselves in Irak. For fear lest the Germans might be welcomed in French Syria, they were also engaged in a small campaign to clear that province of the troops there which had remained loyal to the

French government of the surrender. With Crete in Axis hands and with Axis troops again on the desert border of Egypt, it seemed logical for Germany, in one way or another, to drive the British from the Mediterranean. The alternative methods seemed to be either to strengthen Rommel or to march overland across Turkey and through Syria. Neither of these was easy but neither seemed out of the question. In Rommel's case the difficulty was one of climate and communications. The Turkish and Syrian advance would also be a difficult problem in logistics, and would meet courageous if somewhat ill-equipped resistance from the stubborn Turks. It would involve first a forcing of the Dardanelles and Bosphorus, next a march of more than 500 air miles southeastward across the almost roadless wastes of central Asia Minor, and after that an advance of another 500 air miles southward over the almost equally bad communications of Syria, Palestine, and finally the desert. The actual road distance would be at least 1,500 miles. The right flank of such an operation would be exposed to amphibious activities as long as the British dared keep their fleet in the Mediterranean, while its left flank in the Balkans and in Asia Minor would be open to attack from the Soviet should the latter become hostile. Nevertheless, it would seem that either alternative or a combination of both might have been carried through more safely and with less effort than the Germans were about to put forth in another direction.

On June 22, 1941, the world was astonished to learn that the war had been politically transformed by a German invasion of the Soviet Union. The German campaigns in the Balkans and Crete had not been preliminary to further attacks against the British hold on Suez. They had been defensive measures, intended to secure the attack upon Russia against British interference.

Why the Germans chose to attack this vast country without making further efforts to dispose of their existing enemy, England, is a mystery. The German-Soviet alliance had of course been, as the French say, a "marriage of convenience" with plenty of grounds for mutual suspicion and fear. For instance, the increasing industrialization of the Soviet Union might be considered as a danger to Germany because it greatly increased the military potential of the enormously numerous Soviet peoples. These considerations, however,

together with many others which the reader can supply for himself, leave untouched the essential point of timing. We ask in vain for the real reason why the German Highest Command deliberately involved its country in a two-front war. Writing in 1935, the French admiral Castex, after a glance at Philip II of Spain and after examining at more length Napoleon and Kaiser William II, concluded that all great European aggressors are blunderers in policy, presumably through pride of power. Further than this we can hardly go.

As to the reasoning which convinced the German leaders that a military decision against the Soviet was within their power, we are often and truly told that espionage and counterespionage have been so long and so extensively practiced by Russians that the German agents were purposely deceived into underestimating the resistance which an invasion would meet. Nevertheless, since this idea would compel us to believe that the Soviets were deliberately courting invasion, which is improbable, we may disregard it. Among the masses of detailed information in German possession, one fact undoubtedly stood out. In the internal Soviet massacres of 1937-38, known in milk and water phraseology as the "purge," great numbers of officers of the Red Army, perhaps as many as 35,000, had been killed. For the time being, therefore, much of that army was, as it were, beheaded. The Germans may well have believed that so grave a disadvantage could not be overcome.

We have had to resign ourselves to seeing the events on the Soviet front through a thick veil of secrecy thrown over them by the Soviets themselves. Churchill called the Russian campaigns of 1914-17 "The Unknown War," but those fought over much of the same ground since June 22, '41, might be called "The Unknowable War." Consequently, in dealing with the Soviet front it will be best to confine ourselves to what little we really know: the terrain, movement on the map as to which both sides substantially agreed, and the nature of mechanized campaigns. At the same time we must constantly remind ourselves that the struggles which we shall so briefly sketch were numerically by far the largest of the war.

As to terrain, the chief point to be noted is the immensity of the Russian theater. Together with what was from '39 to '41 the Soviet-occupied part of Poland, the western part of the Soviet Union was a shallow, blunt-nosed salient, shaped somewhat like three sides of an octagon with sides between 300 and 400 miles in length. From the

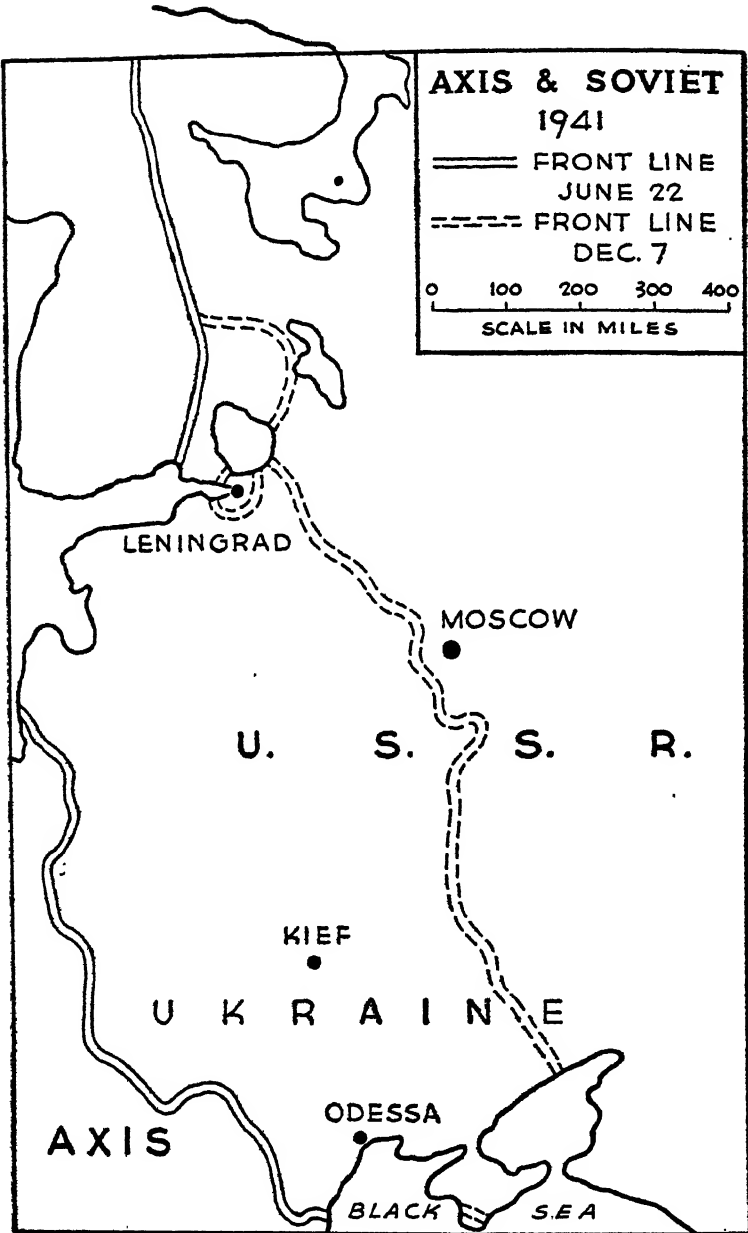
neighborhood of St. Petersburg-Leningrad the northern side of this salient ran southwestward along the shore of the Baltic to the East Prussian border—thus including the little Baltic states annexed by the Soviet in the autumn of '39. From there the temporary border line first ran southward across Poland to the Carpathian Mountains, and next southeastward along the Carpathians and the Dniester River to the Black Sea. From north to south the base of this blunt salient measured nearly 1,000 miles, a distance roughly equal to that between New Orleans and Milwaukee or between Jacksonville and Toronto. Northward again from Leningrad to the Arctic Ocean the front extended for nearly 600 miles more, a total of more than 1,500 air miles, a distance not much less than that between Winnipeg and the mouth of the Rio Grande or between Miami and the northernmost point in Maine. More than 600 miles eastward from East Prussia stands Moscow, and eastward from Moscow Soviet territory stretches for more than 4,000 air miles to the Pacific. The northern and north-central parts of western Russia are difficult campaigning country, full of lakes, swamps, and untamed forests. The industries of Leningrad were important, and if that city were taken it might be possible to cut off European Russia from the Arctic Ocean. In the north center the industries of the Moscow region were still more important than those of Leningrad. Also, Moscow was the seat of the centralized Soviet government and the center of the somewhat rudimentary Soviet road and railway system. The Ukraine, the southern region, contained the best agricultural land, most of the developed mineral wealth, and much of the industrial plant of the Soviet. Its terrain is not so difficult as that of the north; the chief obstacles are the great rivers. On the shores of the Caspian, 700 air miles southeast of the Ukraine, were the rich Caspian oil fields, which furnished the fuel not only for Soviet mechanized war but also for the tractors and other machinery of Soviet agriculture.

In this vast theater the Germans originally attacked with perhaps three-fifths of their constantly increasing forces, which in June, '41, may have numbered about 260 divisions, including from 20 to 30 of armor. They were aided by Finns, Hungarians, and Rumanians, afterward by Italians as well. Their planes, including the small number left in the west and in the Mediterranean area, outnumbered those of the Soviet in a proportion of somewhat less than two

to one, and were on the whole more efficient. In numbers of tanks, on the other hand, the two sides were about even. Immediately behind the Axis forces stood vast construction gangs ready to improve and construct communications as the advance should continue.

In point of strategy, the German Command adapted its method of lightning war to the huge new theater. The great size and bad internal communications of Russia, which had under different conditions defeated Napoleon, made it obviously impossible to destroy the Soviet armies in one or two lightning strokes. Hence the invaders planned a succession of such strokes. Each they began by achieving local air supremacy over a considerable frontage and depth. Next they would surround great bodies of Russians by driving deep tank wedges into their lines and then connecting those wedges across the rear of the Soviet units which were their objective. They themselves called the last stage of such an operation a *Kessel*; i.e., the driving of hunted animals to a central point by enclosing them within a circle of beaters and then contracting the circle.

Using these methods the Germans advanced all along the line. Soon they began to claim vast numbers of prisoners, even to announce in boastful communiqués that the Russian armies had been broken. Probably their early victories were indeed considerable. Toward the end of July they had covered two-thirds of the distance to Moscow, and were threatening Kiev, the capital of the Ukraine. At that time American military students thought it unlikely that the Soviet armies would "surprise the world" by surviving the coming winter. Some at least of the German authorities were certainly of that opinion, for elaborate preliminary arrangements were being made in German-occupied Poland to celebrate the expected fall of Moscow. Early in September, after what seems to have been a check in the Ukraine, in the north they were closely approaching Leningrad. Late in September, as the fighting which had begun on June 22 entered its fourth month, the temporary German check in the Ukraine had been converted into a resounding victory which might well have decided a campaign on a smaller scale. On the other hand, however, the rate of the invaders' advance was noticeably slowing down, and a considerable German desire to economize manpower, to win by maneuver rather than by slugging, was apparent to attentive observers. As autumn drew on toward winter,



although the steadily increasing total of German divisions may have reached 300, and the Axis divisions in the Soviet Union probably amounted to 180, the rate of advance became still slower. In October, while Leningrad still stubbornly held out, there is reported to have been a panic among the civilians in Moscow accompanied by both anti-Jewish and antigovernmental feeling, but great Soviet armies were still in being, and on much of the front snow was beginning to fall. Late in November, while the slow advance toward Moscow was continued and the front there was snakelike with improbable-looking salients, a Soviet counteroffensive in the far south for the first time scored a definite local success. With the Russian winter about to halt the Axis offensive, the Germans had failed to achieve a decision.

What had happened? Peering through the fog of secrecy, we can see the campaign only in its largest outlines. First, there had been no general anticommunist rising. In the districts occupied by the invaders, especially in the Ukraine, German propaganda, centered on favoring the Orthodox Church and land ownership for the peasants, had indeed made some headway. Nevertheless, on the whole the strong national patriotism which had so long upheld "Holy Russia" now supported the Soviet Union. Notwithstanding the Soviet's many acts of harshness, the Russian masses were determined to defend both their government and their country. The Russian soldiers have always been stubborn fighters, undiscouraged by losses and defeats. When surrounded by Germans in '41, if they often surrendered in masses, on the other hand they often resisted obstinately. Moreover, Soviet industrialization had now abundantly provided them with artillery and tanks. As always, there were vast reserves of manpower. Although the population of greater Germany was now nearly half the Soviet population of perhaps 180,000,000, it has been estimated that the high Russian birth rate produced an annual "class" of 2,000,000 eighteen-year-old boys as opposed to a quarter of that number in the Reich.

On the technical side, the German armored divisions were now no longer having it all their own way. Never before had they faced such powerful tank opposition. In spite of the effectiveness of Rommel's antitank defense in Libya, Fuller believes that in Russia the *Panzer* antitank units proved insufficient. He further notes that few, if any, of the infantry and artillery units which were organic in

the German armored forces were transported on cross-country vehicles with caterpillar tractors. Thus, except for their tank brigades, the German armored divisions were largely road-bound. Certainly the Russian lack of modern roads hampered the Axis as it had all previous invaders. And certainly, in spite of German forethought and organizing ability, the immensity of almost roadless Russia weighed upon the invaders like a great stone.

So matters stood when on December 7, 1941, the war was again politically transformed. On that Sunday morning the crews of the American battleship fleet anchored in Pearl Harbor, near Honolulu in the Hawaiian Islands, suddenly found themselves under attack by Japanese planes.

VI. HIGH TIDE AND SLACK WATER

BETWEEN December 7, '41, and November 8, '42, the Axis reached its high tide of conquest and was held. Throughout nearly all of these eleven months the Germans and the Japanese advanced. Indeed, the Japanese advanced prodigiously. Both, however, were halted short of decisive success, and toward the end of the phase it was clear that the initiative was about to pass from them.

Insofar as Christendom can understand Japanese affairs, the island kingdom is an example of that rare thing, the aristocratic state in which a governing class is more powerful than either a single chief magistrate or the masses. Like medieval Venice, and like ancient Carthage and modern England throughout the greater part of their histories, Nippon is a sea power. In '41 she had the world's third strongest navy. Unlike the other three aristocratic communities, however, for more than two generations—their conscription law dates from 1873—the Japanese have maintained a considerable land power as well. In general they have copied the techniques of the West, often with much skill but never creatively. In morals, on the other hand, they remain much as they were. Sometimes their behavior seems somewhat touched by the Christian ethic to which the West more and more vaguely holds, but often they indulge in systematic tortures of a sort which are still disgusting to most people in the Christian tradition.

The Japanese home islands, with the addition of Formosa, taken from the Chinese in 1894, are strung out for some 2,400 sea miles from northeast to southwest off the eastern coast of Asia, most of the temperate zone of which they enclose. Accordingly in maritime strategy their position is strong. That position was further strengthened by the treaties of 1919 which gave them control of the Caroline and Marshall Islands, widespread archipelagoes of tiny islets just north of the equator and northeast from New Guinea. On the other hand, the Japanese homeland has few of the raw materials of industry, whereas the huge, ill-organized land mass of China has such materials abundantly. The Japanese were therefore tempted to use their military and technical superiority in order to possess them-

selves of a part of China's natural wealth. Further, the British, acting chiefly as bankers and middlemen, have long enjoyed considerable profits from China, and as the armed strength of England weakened in relation to that of Japan, the Japanese were also tempted by those profits. Still other temptations to them were the natural riches of British Malaya and the Dutch East Indies—oil, rubber, tin, and so on.

For ten years before Pearl Harbor, Japanese soldiers had marched far and fought often in campaigns of conquest on the Asiatic mainland. In 1931 they had set up a puppet state in Manchuria under the shadowy sovereignty of the heir of the Manchu emperors of China, whose private estate Manchuria had historically been. Subsequently they had occupied the eastern part of northern and central China, and had seized most of the Chinese ports to the south. Late in July, '41, while American military critics were writing that the Soviet armies were unlikely to survive the coming winter, the little men from Nippon had taken another long step southward, occupying French Indo-China without resistance from the powerless representatives of the French government of the surrender.

Most of such Western opposition as there had been to the Japanese continental advance had come not from England, whose material interests in China were much greater than those of the other Western powers, but from the United States. In '31 Mr. Stimson, then Hoover's secretary of state, had tried through the feeble League of Nations to persuade the European powers to join him in taking some action against the Japanese penetration of Manchuria, on the historically doubtful ground that the territory in question was part of China. The Europeans had refused.

Later, as the fall of the southern Chinese ports strategically isolated the surviving centers of Chinese resistance in the southwestern provinces, the one means of communication between the outside world and those provinces was the Burma Road. The British, in their anxiety not to offend Japan, went so far as to close this road for some three months in 1940. The United States, on the other hand, began to use her economic power against Japan, putting pressure on the latter by a gradual series of embargoes openly directed against Japanese policy in China.

How far such embargoes are acts of war is debatable. At all events, in the fall of '41 the United States was obviously on the edge

of what would unquestionably be war in the Pacific as well as the Atlantic.

Early in December, '41, with German guns only seventeen miles from Moscow still thundering over the snow-covered approaches to that capital from which the civilian departments of the Soviet government had long since withdrawn, the Japanese decided that their moment to strike against the West had come. Dutch armed strength had always been negligible, and for the moment the English-speaking countries were weak in the Far East. In the entire Pacific area, the only considerable force which the Japanese must fear was the principal United States fleet. On the other hand, time was running against Nippon as American armaments rapidly increased.

The action of the Japanese in attacking without declaring war and while a special Japanese diplomatic mission was discussing peace in Washington was in principle an exact copy of their opening moves against China in 1894 and against Russia in 1904. Since these historical examples were well known, it seems impossible to explain why the American forces were surprised both at Pearl Harbor and on the airfields of the Philippines, where another simultaneous attack was made, except by assuming that the Roosevelt administration in Washington had deliberately kept its local commanders in the dark. This guess seems supported by the denial of court-martials to the officers concerned, even after years had passed since the time when such court-martials could have revealed the smallest scrap of valuable military information to the enemy.

At all events, both in the Philippines and at Pearl Harbor the American planes were closely grouped so that they might be more easily protected against sabotage. Consequently, the surprise Japanese air attacks quickly destroyed on the ground most of the American air strength in the Philippines and in the Hawaiians. In the Hawaiians the attack was promptly switched against the American battle fleet anchored in Pearl Harbor, and here again severe damage was inflicted.

Politically and in point of grand strategy, these Japanese strokes gave the war its final form. Thereafter the United States and China were allied with Britain and the Soviet, while Japan was allied with the European Axis, although—at least until the end of the period

covered by Part II of this book—she and the Soviet remained at peace with each other. English sea power, now reinforced by the American Navy, was henceforward in partnership with two land masses, the U.S.S.R. and China, each in direct contact with one of the Axis partners and largely isolated both from the English-speaking countries and from each other. The United Nations now had the immense productivity of the United States safely behind its oceans and fully on their side. With time they could also count on formidable United States land reinforcement. On the other hand, the United States, like England, could act only across long and potentially vulnerable “bridges of ships” which offered tempting targets to Axis submarines.

The crippling of the United States battle fleet in Pearl Harbor was quickly followed by the success of Japanese torpedo planes in sinking the two British capital ships in Malayan waters, the latter having put out without air cover in order to interfere with a Japanese landing operation.

These successive disasters to the United Nations opened the Far East to a sudden rush of Japanese conquest. Throughout that vast region the whole scheme of United Nations defense had been based upon sea power, and with the Japanese now superior at sea the little yellow men could do as they liked. When Pearl Harbor is considered in the light of the subsequent naval war, it may appear that the Nipponese might have done better in the long run had they been able to cripple the American aircraft-carrier squadron as they actually crippled the battleships. This, however, would have been a more difficult task because the carriers were anchored in an open roadstead near Pearl Harbor where they could have maneuvered, whereas the battleships were boxed into the restricted waters of the harbor itself. Be that as it may, for the moment the situation was bad enough.

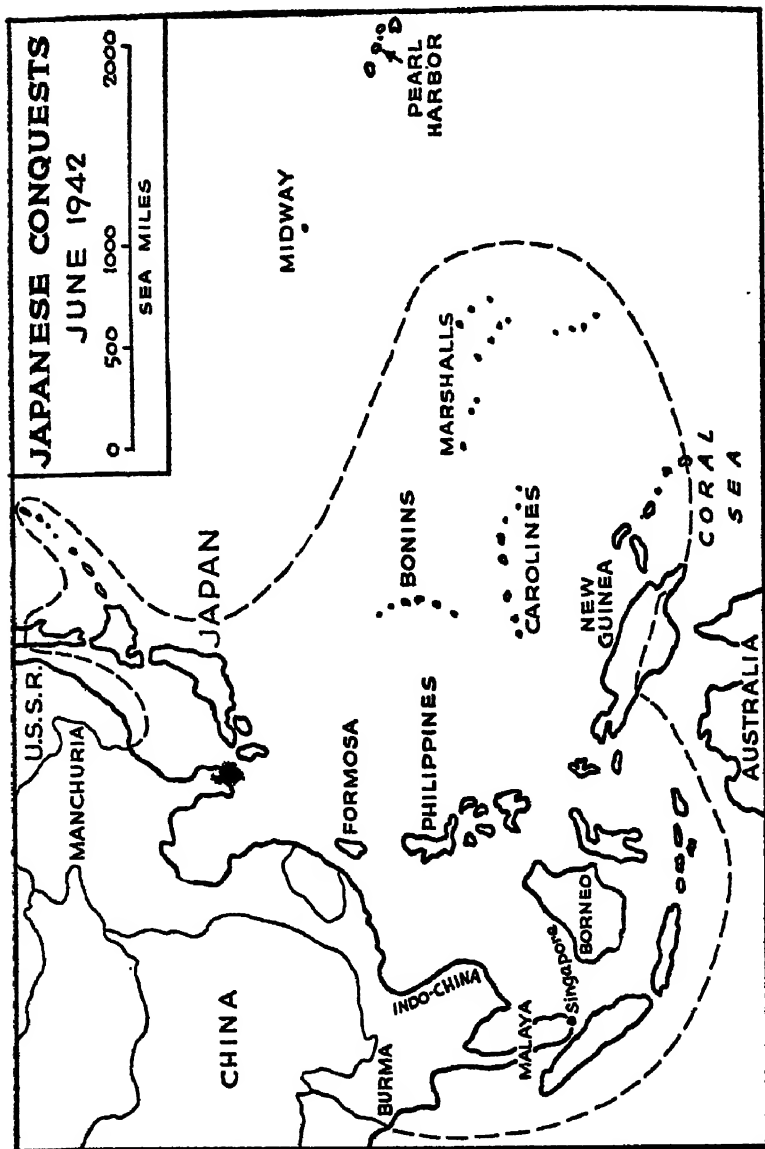
For some five months after Pearl Harbor, everywhere the prompt and well-co-ordinated Japanese moves were made with overwhelming strength in all three elements. After the German pattern, in every operation their first step was to gain absolute air supremacy. In Oceania air work was even more important than in continental campaigns, because ships can be sunk while overland communications, no matter how battered, can seldom be as completely de-

stroyed. Indeed, throughout the southwest Pacific communications depend on shipping even more than a glance at a globe will indicate, because of the rarity of roads and railroads. In Java and in parts of the Philippines and Sumatra military movements can be made overland, but in most of the islands the only land routes are difficult trails through pestiferous jungles. Thus nearly every locality inhabited by civilized men is strategically an island of its own. For instance, considerable islands like Borneo and New Guinea are militarily cut up into a number of little coastal districts practically inaccessible to each other except by sea or air. The Malay Peninsula is strategically an island, and in '41 there was no organized land communication between Burma and India.

Politically the small western garrisons were divided between the three nations involved, and only in the Philippines did an appreciable part of the native population help to resist the Japanese invaders.

Americans may well be proud of General Marshall's insistence, from the very beginning of our belligerency, upon the necessity for unity of command in each theater. In the very midst of the Japanese rush he is reported to have said that it was worth while to establish the principle of unity even if the nominal commander had only the right to make recommendations to the Allied governments concerned. For this alone, even if his many other contributions to the final victory should by some unhappy chance be forgotten, his name would deserve to be long remembered.

Nevertheless, for the moment the Japanese had everything their own way. In addition, their operations were well conceived and vigorously pushed. By the middle of March, '42, they had seized Malaya, including the great British naval base of Singapore; they were threatening Australia from the northeast; and they had mastered all the enormously rich country between these distant points, except for a tenacious but obviously doomed American and Filipino resistance on the Bataan peninsula near Manila. Before the end of May they had crushed all organized opposition in the Philippines, and in the west had occupied Burma, thus cutting the only Anglo-American land route to Free China. In the Bay of Bengal, along the Burmese-Indian border, and in northern Australia with an exposed foothold in southeastern New Guinea the United Nations stood on what seemed a doubtful defensive. Most of the British Mediterranean and Indian



fleets are said to have been withdrawn far to the south, and to have been concentrated on the coast of British East Africa.

Thus based, the British Navy was at least prepared to dispute the command of the Indian Ocean should the Japanese fleet advance farther to the west.

The existence of two widely separated areas of hostile action compelled the English-speaking powers to divide their forces. Throughout the succession of Japanese victories those powers maintained their joint decision to consider Germany as their chief enemy. Americans might have debated this but, with the Germans on the French coast only twenty miles from Dover, no Englishman could. Vital though it was to keep the Japanese from India and Australia, the whole Japanese theater was, in the main, to receive only enough Anglo-American forces to halt the enemy and to occupy them with local counteroffensives. After all, the Japanese were now weakened by the enormous length of their lines of communication—to reach Burma from their home islands they must travel more than four thousand miles.

Meanwhile England, still under great strain and heavily threatened, was more vital than any point outside the Americas, even from a purely American point of view. It was a valuable defensive outpost, an advanced air-bombing base, and a necessary base for future land offensives. Thus it was worth far more than any point in the western Pacific, the Indian Ocean, or the Mediterranean. The one theater of equal or greater importance was Russia, where the bulk of the German Army, perhaps 200 out of 300 divisions, plus a mass of satellite troops, was engaged.

Next to the defense of Britain and the building up of Anglo-American strength for an offensive against Germany, the chief task of the Western sea powers was to strengthen the Soviet Union by sending supplies over the difficult Persian and North Cape routes, which alone were available for that purpose. The convoys to the Soviet arctic ports, sailing chiefly under British escort, had to run the gantlet of German submarines, planes, and surface ships based upon Norway. The sea terminus of the Persian route could be approached only after the long sea voyage around Africa, while the land route itself was so difficult as to necessitate a considerable engineering effort. Vladivostok on the coast of Pacific Siberia could

of course be used only by Japanese permission. In spite of all these difficulties, a resolute and on the whole a successful effort was made to support the Soviet front.

Meanwhile, there was the necessity for halting Japan. On the southwestern land frontier of their new empire the Japanese were now checked by the almost nonexistent land communications between Burma and India. They would therefore have had to risk a good part of their fleet in a general action against the British somewhere in the Indian Ocean before they could have safely invaded India. This risk, however, they did not choose to take. Instead they busied themselves with exploiting the vast riches of their immense new conquests.

Had the German-Japanese partnership inspired a co-ordinated strategy, even had the Japanese not felt strong enough to invade India, still a naval or amphibious attack by them against the rear of the British position in the southeastern Mediterranean, that is, against the Persian Gulf and the southern entrance to the Red Sea, might have served the general interests of the Axis better than any other possible move. If successful it would have deprived the Western sea powers of all non-American oil. Perhaps the Japanese were not prepared to take action which, so they may have thought, would serve immediate German interests more than their own. Perhaps they were preoccupied with what the United States might do. At all events, except for a single air attack upon Ceylon, which was warmly received and not repeated, they made no further westward move.

The military interest of the Japanese theater now shifted to the American and Australian sectors. There for the moment the only question for the United Nations was that of organizing their defense. As everywhere in the Pacific, strategy was dominated by the enormous size of the theater. From the Pacific coast of the continental United States to Australia is a voyage of nearly 6,500 sea miles, more than twice the distance from New York to Liverpool. For the last two-thirds of the distance, southwest from Hawaii, the ocean is dotted with innumerable archipelagoes. Among these the Japanese line of advance from northwest to southeast cut across the American line from northeast to southwest. To the extent that Japanese sea command and island garrisons could be advanced toward

the southeast, the left flank of a Japanese invasion of Australia would be protected. At the same time, the sea traffic between America and Australia would be made slower and more expensive in tonnage through being forced to make a great elbow to the south. As we have seen, by March 1, '42, while Bataan was still holding out and Java, although gravely menaced, had not fallen, the Nipponese were already installed at Rabaul in the Bismarck Archipelago and on the northern coast of eastern New Guinea. Accordingly, the Americans threw garrisons into a number of the islands of the southwest Pacific, especially New Caledonia and the New Hebrides. Before the fall of Bataan, General MacArthur had been ordered from there to Australia to command the United Nations forces in the southwest Pacific, and American troops were also landed in Australia itself.

In organizing the defense of Australia—that strange subcontinent of which the center is desert and the far north steaming, tropical jungle, while most of the scanty population of only seven millions lives on or near the southeastern coast, connected overland with each other and with the southwest coast by an ill-co-ordinated railroad system with frequent changes of gauge—the immediate duty of MacArthur and of the U. S. Navy was to decide whether to try to halt the Japanese in Australia itself or in the islands to the northeast. It has since been published that the original Australian plan was to fall back from northeastern Australia if the Japanese landed there, and to stand farther south, covering the thickly populated southeastern part. MacArthur, however, decided for the bolder course.

The first general action, a naval engagement of a strange, new sort, was fought in the Coral Sea southeast of New Guinea in the first week of May, '42. The prologue to this action was an attack by American planes which achieved some success against the transport shipping which had landed Japanese troops in one of the southeasternmost islands of the Solomon group. The action itself constituted a check to a Japanese attempt to double the eastern point of New Guinea, then either to land troops near Port Moresby, the last point held by the United Nations on that island, or to invade Australia itself. The novel feature of the engagement was that no surface warships exchanged shots. The fighting consisted of attacks by the carrier-based planes of each side against the surface warships of

the other, the mission of the Japanese being to cover their troop transports and that of the Americans to prevent their doing so. Each side lost a carrier, and although no estimates of the other Japanese losses have been published, the conflict was an American success in that the Japanese retired. Nevertheless, the Mikado's subjects still retained the initiative and were about to attempt further advances.

At this point the U. S. Naval Command had a difficult decision to make. Would the little yellow men continue their attempt to move southeastward, or would they strike far to the north? The student of land operations should remember that such decisions are peculiarly difficult in war at sea, because there the opposing forces are not in continuous contact as on land but are in touch with each other only for short periods. Thus the conditions perpetually favor surprise, as they did in the eighteenth-century land wars when two armies lost contact with each other on going into winter quarters. The U. S. Naval Command reasoned that, since the Japanese knew that our carriers and much of our cruiser strength had recently been in the Coral Sea, their next stroke would probably fall elsewhere. Accordingly, the American carriers were shifted some three thousand miles northeastward to the Hawaiian Islands, the crossroads of the northern Pacific. At the same time, active patrolling was kept up westward from Midway Island, itself about one thousand miles west and somewhat to the north of Hawaii.

The American admirals' decision proved correct. Early in June, '42, a large Japanese squadron including carriers and battleships as well as cruisers was sighted west of Midway and steering eastward. For four days there followed a series of widely scattered actions, like the battle of the Coral Sea in that no hostile surface ships engaged each other. Japanese carrier planes attacked both the American ships and Midway Island, while American carrier-based and land-based planes attacked the Japanese ships. By the end of the second day the Japanese were retreating westward. On balance the United States lost a carrier and a number of planes, especially torpedo planes, which without escorting fighters gallantly attacked the Japanese carriers. All four of the latter, however, were disabled and sunk and several other large vessels were hit. The Japanese were not destined to advance so far eastward again.

In the same month the Mikado's men boldly garrisoned several

of the little fog-bound Aleutian Islands. Although these advances threatened no vital points, somewhat disproportionately large efforts were made to counter them. Since Alaska was strategically an island without organized land communication with the rest of North America, and since United Nations ships were badly needed elsewhere, a road was laboriously built to connect that territory with the main body of the United States across the wildernesses of western Canada.

Early in August the first United Nations move into Japanese-occupied territory was made when U. S. Marines were landed on the island of Guadalcanal in the southeastern Solomons north of the Coral Sea. General Vandegrift, who commanded the landing force, recently told us that the operation was hastily undertaken when the Japanese were found to be building airfields in the southeasterly part of the Solomon archipelago.

Paradoxically enough, the first months after Pearl Harbor when America was strenuously building up her vast war effort were unfavorable to the United Nations not only in the Pacific but also in the Atlantic. The U. S. Navy, in its anxiety to complete its new ships of the larger types, had somewhat neglected its antisubmarine flotilla of light craft. Also, it had rightly concentrated its existing ships and trained crews on the urgent necessities of holding the sea lanes to England and halting the Japanese. Consequently, German submarines, now able to keep the sea for much longer than in the last war, had considerable success in attacking merchant shipping, especially oil tankers, just off the American Atlantic coast. Nonetheless the Naval High Command, with admirable firmness, continued to concentrate upon its primary tasks.

While so many new theaters were being opened, Cyrenaica, which had already seen so many battles, was the scene of still another British advance and retreat. One reason why the specifically British elements of the British Empire's ground and air forces at the beginning of the war in the Far East had been so small was that Churchill had tenaciously continued to reinforce Egypt. About mid-November, '41, some three weeks before Pearl Harbor, the British, now superior in the air and abundantly equipped with American tanks, again moved westward. They failed by a narrow margin to destroy Rommel's army but inflicted such loss upon him

that he retreated from Cyrenaica, halting in the desert between that province and Tripoli shortly after Christmas. Here, however, his tanks were reinforced, and perhaps for the first time he received some high-velocity, dual-purpose 88-millimeter guns. After simulating an intention to retreat farther, in the last days of '41 he suddenly struck back. As in the previous March, the British seem to have been surprised. Again, this time making great use of his 88's, he destroyed most of their armor and overran Cyrenaica. The British stood behind extensive mine fields which they laid well forward in the desert some thirty miles west of Tobruk. Rommel halted in the eastern part of fertile Cyrenaica, and there was a pause while both sides built up their strength.

Late in May, '42, shortly before the battle of Midway, this pause was ended when Rommel renewed the attack. After about a fortnight of action with varying fortunes, an engagement in which the British suffered heavy tank losses—probably from Rommel's effective 88-millimeter guns—compelled a hasty British retreat eastward for about 350 miles. Toward the end of June, however, far to the east of the desert boundary of Egypt and only about sixty miles by the coastal road from Alexandria and the fertile delta of the Nile, the British stood. Here a militarily impassable patch of desert which leaves only a corridor somewhat more than twenty-five miles wide between its northern end and the sea afforded the British a final defensive position at a place called El Alamein. During the retreat the RAF persistently harassed the pursuing Axis units. Early in July when Rommel, with his supply lines now badly stretched by the extent of desert at his back, attacked the El Alamein line, that line held. There followed another pause, during which both sides again did their utmost to bring up reinforcements.

Turning now to the main land front of the war in Russia, on December 8, '41, the day after Pearl Harbor, the Germans announced that further attempts to take Moscow would be postponed—as if the purpose of their recent attacks had been merely to get Japan into the war. Already an unusually early cold snap had hindered them. So historically minded is the German staff that their previous persistence in attacking for some time after their decision to halt for the winter may have been inspired by Napoleon's conduct in October, 1812, when the Emperor began his retreat from

Moscow by moving not westward but southward to attack the principal Russian army. At all events, the invaders now went on the defensive. Their dispositions were such as to shelter nearly all their troops from the Russian climate. Over most of the front they strongly fortified with all-around defenses an advanced line of railway junctions, and withdrew most of their troops for some distance westward from this line of widely separated points, confident that the difficulties of communication would keep the Red Army from effectively besieging their advanced posts or from pushing far to the west in the unguarded intervals. The only active German winter operation was the continuing siege of Sevastopol.

On the whole the German defensive scheme worked well. The Soviet forces defied the climate and went over to the attack with admirable tenacity, but won only a few local successes. Where defensive machine guns opposed unarmored attacking infantry, the machine guns usually won as during 1914-18.

After the spring thaws the Germans moved only in the last days of June, and then only on the southern half of the thousand-mile front between Leningrad and the Black Sea.

Indeed, the future course of the campaign was to include no major attacks either toward Moscow or farther to the north. The advance in the south, although not an attempt to destroy the mass of the Red Army as the campaign of 1941 had been, was emphatically a bid for a decision. It was aimed both at the Caucasus region, from which nearly all Soviet oil came, and also at the Volga River, up which that oil was carried to Moscow and the rest of the Soviet Union's central and northern territories. Had it succeeded, both the Soviet war effort and the tractors essential to Soviet agriculture would have been starved for fuel. Had it conquered the whole Caucasus-Caspian region, it would have made the Black Sea an Axis lake, and cut the Anglo-American supply route across Persia to the Soviet. In the event of overwhelming success, it might have prepared the way for a German advance on the oil of Irak and the Persian Gulf. Nevertheless, it was a far more modest and less sweeping operation than the offensive all along the line of the year before.

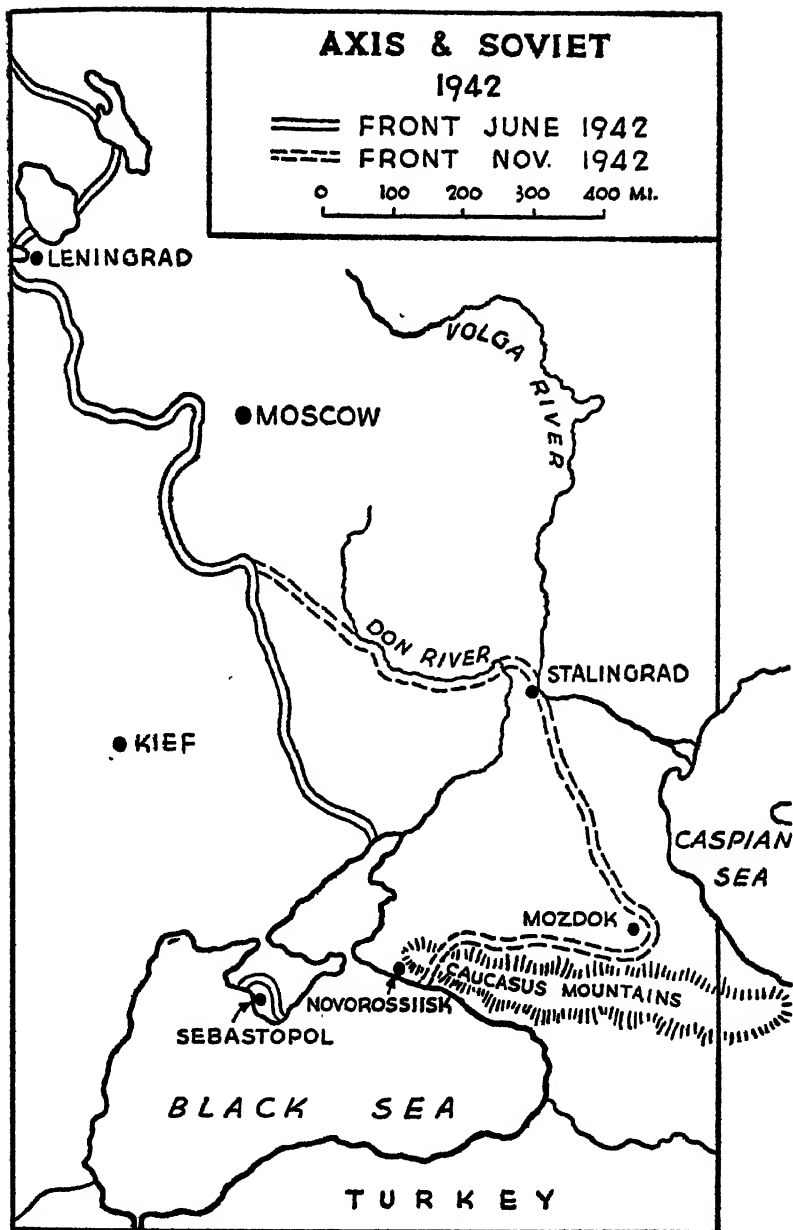
The German decision to attack only on the southern part of the Soviet front brings us to a mystery even darker than that underlying the original attack upon the U.S.S.R. It is at least clear that in '41 the German leaders must have been overconfident but

that in '42, with the United States in the war, they must have seen that the time was running against them. Hence one would have thought that their best chance would be an intense effort to knock out the Soviets before American power began to be felt. Toward the end of '41 they had indeed admitted permanent losses of well over 850,000, but the large numbers of recruits whom they afterward found show that at the beginning of '42 German manpower was still abundant. Consequently, their comparatively conservative procedure looks like a deliberate attempt to "win on the cheap." But why? We do not know. Like most revolutionary governments, they may have feared unpopularity at home.

At first all went well with them. Early in July the stubborn resistance of Sevastopol was finally beaten down. Toward the end of that month nearly all the west bank of the Don River had been cleared. By the end of August the invaders were approaching Stalingrad, formerly Tsaritsyn, the city of the Czarina, where the Volga bends to the west. On the southeast they were halfway to the Caspian at Mozdok. On the Black Sea shore they were threatening Novorossiisk, the last good harbor in which the Soviet Black Sea fleet could lie. Before mid-September Novorossiisk had fallen, and Stalingrad was closely threatened. The Red Army had been counterattacking persistently on the northern part of the German offensive front but without appreciable gains, while all Soviet organs of propaganda were crying for an Anglo-American second front in the West.

For this, however, the Anglo-American leaders did not yet consider themselves strong enough. Late in August English and Canadian units raided the coast of Normandy at Dieppe under powerful air cover and re-embarked most of their troops, but only after suffering a high proportion of losses without taking the town. Dieppe at least taught valuable lessons in landing against opposition and about German defensive methods. The defeat of a larger landing in France would have helped the Russians little, while either such a defeat or stalemating of a landing followed by an attempt to hold an Anglo-American foothold would have been ruinously costly in Anglo-American shipping.

Meanwhile, as September gave way to October, Stalingrad still held out. South of the place the Germans had reached the Volga and interrupted the river transport, but while the rubble heaps



which had been the town were still defended the invaders' foothold on the bank was still insecure. On the night of October 8 the German radio announced that there would be no more infantry assaults upon the remnants of the city. The last defenders would be blasted by heavy artillery and then the place would be mopped up. Obviously the German infantry were finding the going too hard for them. A memorandum by the present writer dated October 10, 1942, reads as follows:

"The German halt at Stalingrad suggests many uncertainties but at least two certainties, one tactical and the other political or social.

"The tactical certainty is that the difference in combat value between highly trained and ill-trained troops tends to decrease in stabilized, i.e. position warfare—provided always that the ill-trained troops have their hearts in the job. Military history is so full of illustrations of this truth that instances would here be superfluous. The brain of an army is the training of its officer corps, its maneuverability is the training of its units as a whole. Both have scope in open warfare, but lack scope in position warfare, where all that counts is willingness to fight, armament, and weapon training.

"The second certainty is less tangible but very real: It is that the natural toughness of the Russian has been increased by a peculiar spiritual toughness. The root of this is religious tradition. It cannot be too often repeated that east of the Adriatic all political and social life is determined by religion. We of the Protestant tradition are accustomed to the friendliest relations between individuals belonging to different Christian bodies, and cannot begin to understand either eastern Europe or the more distant East without realizing the difference in spirit. The Russian is peculiarly given to mystical exaltation. The undersigned will never forget either the devotion of the Russian pilgrims of all social classes to Jerusalem, which he saw in 1907, or the huge crowds which filled not only the churches but the sidewalks and streets outside the churches of St. Petersburg on the Orthodox Easter in 1914.

"Like bolshevik Russia today, Orthodox Russia was for centuries accustomed to living in spiritual isolation from all her neighbors. Consequently the strong Russian patriotism was exalted by a messianic sense of national mission. Probably no country in the world more detests foreign invaders on her soil. This detestation has of

course been incapable by itself of resisting the German armies, especially in open warfare. In the positional fighting around Stalingrad, with the Germans on the end of a long line of communications, and with many individual German soldiers increasingly homesick for their distant fatherland, the peculiar spiritual toughness of Russia has strengthened resistance.

"Beyond this everything is uncertainty. Probably the German government and High Command expected a quicker and more complete victory than they have won against the Russians, under their bolshevik government. The extent of the German success to date is doubtful. One would have to know the losses on both sides and the effect of those losses upon both German and Russian morale before one could begin to estimate it accurately. Equally doubtful and vitally important to the future of the war is the question how far the Russian territories still unconquered can make up economically for the loss of the valuable and thickly peopled regions now in German hands. Also, how much of the agricultural and mineral wealth of the Ukraine-Caucasus region can Germany succeed in utilizing? In the last war she was hardly able to capitalize at all on her possession of the Ukraine, but that may or may not be a precedent.

"Another uncertainty is the reason for the public announcement in an English-language broadcast of the decision to halt mass infantry attacks. If the halt is merely to conserve German manpower, then why the English-language announcement? It is presumably intended to deceive or at least affect Anglo-American opinion."

Since the breaking off of large-scale German air attacks on England in November, 1940, the war in the Atlantic theater had been one of attrition at sea and in the air, a long-drawn process with each side trying to wear down its enemy.

At sea the serious British losses in cargo-carrying tonnage after the German conquest of the Atlantic coast of Europe between April and June, 1940, had continued throughout '41. These losses had been due chiefly to German submarines, now no longer operating singly as in the last war but in "packs," i.e., small squadrons. For some time long-range German planes had also played a considerable part. Of the 581 British and Allied ships admittedly sunk from the beginning of the war to the end of March, '41, about 23 per cent

had gone down before direct attack from the air. For the period following the fall of France the percentage may have risen to about 40 per cent. With the summer of '41 improved British defensive measures both by planes and by the greatly increased numbers of small surface warships were reducing the total monthly rate of sinkings. By autumn the losses to direct air attack alone had fallen to 8 per cent of those of the preceding April. Also, the German submarine flotillas were losing heavily. Most of the best and boldest of the German submarine commanders had gone—a vital matter in so individualistic a business. As before, German surface raiders were accomplishing less than might have been expected of them. The alarming gap between sinkings and replacements began to narrow. In November, '41, Churchill publicly said that the net loss for the past four months had been only one-fifth of that of the previous four. The actual sinkings, however, were still one-third as great. Notwithstanding the rapidly rising rate of replacements, increasing military demands together with the accumulative effect of losses still made the position most difficult. American shipyards, immune to the necessity of a nightly blackout, might clatter night and day with activity. Their product combined with that of the British yards could not quickly replace the ten million tons of merchant shipping which had gone to the bottom by the summer of '42.

In May of that year after the vast Japanese conquests in the Far East, the necessity for safeguarding the hard-pressed British shipping lanes had inspired a British and Free French landing upon the island of Madagascar, then garrisoned by the French government of the surrender. The weakness of that government might have permitted Japanese espionage, perhaps even a Japanese occupation.

During the pause in land operations in the Atlantic theater during '41 and the first ten months of '42, in addition to their exertions at sea the British had also made a considerable effort in the air, perhaps on the whole a disproportionately large one compared with their other war activities. In the beginning this was a natural reaction to their sufferings from German planes in 1940. After being in such danger from the air, it was logical to strengthen first the defensive air component, that is, the Fighter Command, and also the offensive component, that is, the Bomber Command, so that a greater part of the air war might be carried into Germany.

Had the enlarged Bomber Command been used chiefly as a

weapon in the naval war of attrition by means of attacks upon submarine bases, submarine-building shipyards, etc., and also as a harassing weapon, striking now here, now there against the German war economy, again nothing could have been more logical. Instead the attempt was made to use the British bombers to kill Germans by raiding their cities and to inflict serious damage upon the German war machine.

At this point serious doubt arises. In '39, Germany alone covered about four and a half times the area of Britain. Together with France, Belgium, Holland, Denmark, and Norway, the German-dominated area in the west was now nearly twelve times the size of Britain. Also, the Germans were known to have taken considerable precautions against possible air bombing, decentralizing manufacture in a great number of small plants, putting certain important factories underground, etc. Consequently, the failure of the German bombers to cripple so concentrated and so favorable a target as England in 1940 might have warned the British airmen against a similar attempt under far more difficult circumstances against Germany.

Wholly outside of reasoned calculation, however, two factors encouraged what was probably overemphasis upon British long-range, "strategic" bombing. It was popular with the masses who saw in it a revenge for the German air campaign. It is a form of war in which the attacking country risks an infinitesimally small fraction of its own manpower. It is also a proceeding which is particularly affected by most military airmen, being technically simple compared with the difficulties of tactical air support for ground forces. It is an independent undertaking which, if successful, would prove the plane to be the dominant factor in war.

As far as lowering the industrial power behind the German war effort was concerned, the results first of English and afterward of Anglo-American strategic bombing in '41 and '42 were imperceptible. Something no doubt was accomplished in the way of hindering what would otherwise have been the growth of the German Air Force. While it was true that to wage a war of attrition by opposing expensive bombers to cheaply built German fighters was doubtful enough, nevertheless the Anglo-American air effort was being built up on such a scale that the infliction of any appreciable loss on the German Air Force seemed worth while.

A continuous accompaniment of the air effort was the struggle against difficulties due to weather. In the late autumn of '41 the British Air Command, which had decided upon night bombing, had looked forward to using its greatly enlarged bombing force through the long winter nights ahead. Instead the bad weather of the winter of '41-42 kept the British bombers almost continuously grounded. Once when unfavorable conditions had been risked over Germany, twenty-seven bombers were lost from the forming of ice on their wings.

Toward the end of October, '42, while the seemingly endless defense of shipping and the air war ground steadily on, a glimpse behind the scenes would have shown that on almost every active sector of the world-wide struggle the high-water mark of Axis conquest had been reached and the tide was about to turn. As the American war effort steadily increased, its effect was almost everywhere felt.

On Guadalcanal since the original landing early in August the U. S. Marines had been contending both with the Japanese and with the pestiferous jungle, and the island had been the pivot of a series of mutually costly naval actions in which victory had swayed to and fro. Accepting our challenge to their southeastward advance, the Japanese persistently attacked our shipping, and tried with varying success to reinforce their garrison. As Kipling makes a Roman officer say of certain northern barbarians: "Like wolves . . . where they . . . suffered most, there they charged in most hotly." On September 13 and again on October 26, the American position on land was threatened. On the second occasion the gunfire of the Japanese fleet supported the Japanese ground troops. Nevertheless, the Marines, now reinforced by certain Army units, successfully counterattacked. On that much disputed ground there were to be no more Japanese attacks.

Some six hundred miles west of Guadalcanal in the mountains and the equally pestiferous jungles of New Guinea, about mid-September the Japanese had pushed forward more than one hundred miles over difficult trails to a point within thirty-two miles of Port Moresby. Here, however, they were held. Persistent air bombing and strafing of their insufficient communications interrupted

their supplies. Before the end of September, half starving and under Australian attack, they were in full retreat.

As October ended, the Soviet Command began to plan offensives against the Axis satellite troops, Rumanians, Italians, and Hungarians, who held the flanks of the salient at the apex of which the German Sixth Army, twenty-two divisions strong, still menaced Stalingrad.

In the desert west of Egypt a new British commander, Montgomery, was now commanding larger forces than his predecessors. In July a number of United States long-range bombers had arrived, with the result that Axis shipping losses not only between Italy and Cyrenaica, but on the Italy-Tripoli route as well, began to be serious. Late in August Rommel, somewhat reinforced by means of air transport and perhaps underestimating British strength, launched what was destined to be the last of his attacks on the British position at El Alamein. After some preliminary successes he was beaten off with heavy loss. The counterstroke was not to be long delayed.

In the Atlantic during October, the English and Americans completed their final preparations for moving into a new offensive theater, French North Africa.

We may well imagine that this decision of theirs had been hotly debated. In the Pacific, as we have just seen, the Japanese were still pressing hard around Guadalcanal. Moreover, the North African offensive would strike far from the centers of German power. According to the Napoleonic and neo-Napoleonic doctrine which had dominated land warfare ever since the great Corsican's time, a major attack should be aimed at the enemy's heart. If one does not yet possess the forces necessary for such a blow, then that doctrine suggests waiting and building up one's strength while running no risks.

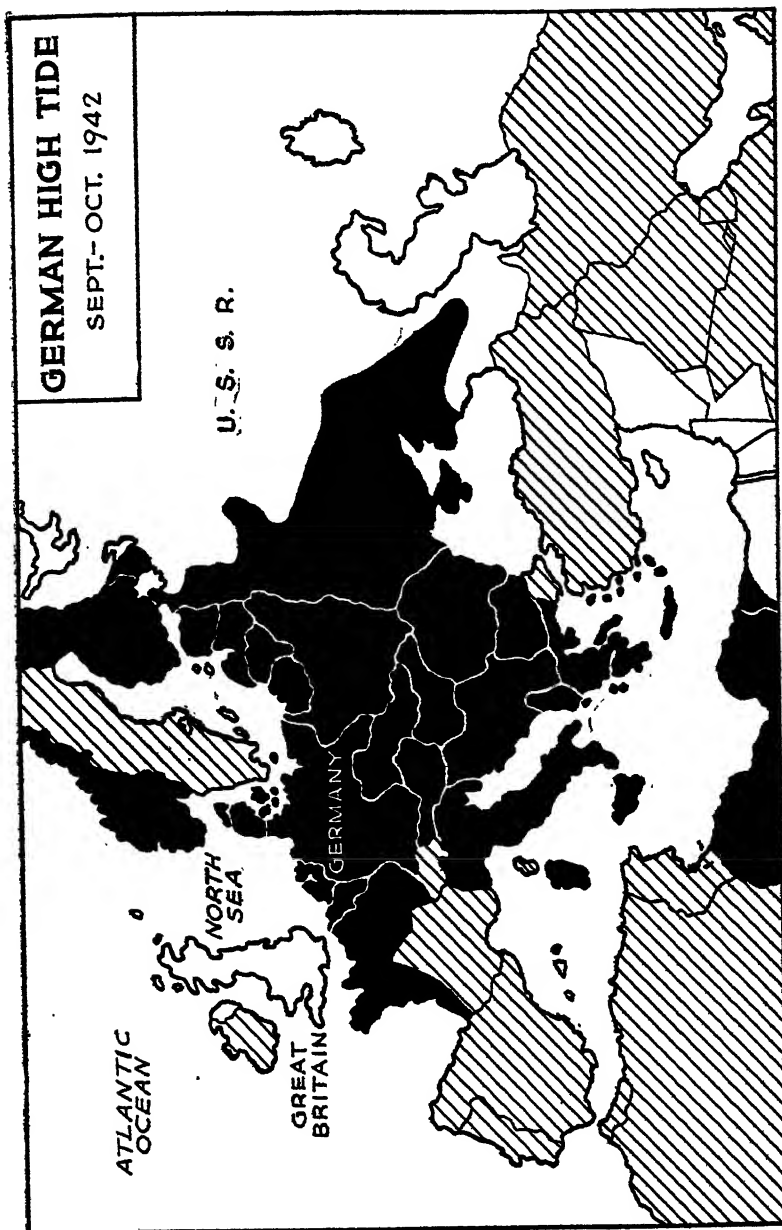
The calculation underlying the North African decision was of a very different sort. It was in line with the strategy of a sea power attacking a power superior by land. Such a sea power, as we saw in Chapter III, must always carry a heavy defensive burden in protecting its merchant shipping. When its command of the sea is threatened, it must first concentrate on strengthening that command. While doing so, in the hope of somewhat redressing the balance of land forces, the sea power should seek out some theater to

which its sea communications are easier than the communications of the land power, so that the latter if attacked there can act only with difficulty.

In the summer and fall of '42, French North Africa fulfilled these conditions better than any other region. The European Axis and Axis-occupied territories then formed an equilateral triangle of about two thousand miles on a side, an area roughly equal to that which would be bounded by lines drawn between New York, El Paso, and Athabaska Lake near Hudson's Bay. On the side toward the Atlantic the Axis front extended from the Franco-Spanish border to the North Cape, as it had done since June, 1940. To the east the boundary ran from the North Cape to the newly conquered salient north of the Caucasus between the Caspian and Black Seas. On the south the general line was that of the western Caucasus, the Black Sea, and the Mediterranean. The neutrality of Sweden somewhat cramped Axis communications with Norway, but neutral Switzerland was strategically negligible, and in general the Axis-dominated European territories formed a continuous block.

On the other hand, south of the Mediterranean in Libya and in the desert west of Egypt the Axis had given hostages to fortune. Thither and to the islands of the Mediterranean—Sardinia, Sicily, and Crete—Italo-German communications must go overseas. Moreover, it was the Axis position in Libya and in those islands which closed the Mediterranean to United Nations shipping. If the English-speaking powers could occupy the entire southern coast of the inland sea they would not only end the threat to Suez, they would also increase the value of every ship of theirs by opening the Mediterranean-Suez-Red Sea route to their merchantmen. If they could also take Sicily, some eighty miles from the northeastern corner of Tunisia, the European Axis would hardly be able to interfere with this route at all.

For powers whose war effort is wholly dependent upon sea-borne traffic the resulting advantage would be very great. To reach Egypt, India, and the Far East from the North Atlantic it would no longer be necessary to make the long voyage around Africa, which the average freighter could complete only three times a year. Egypt would be not much more than three thousand miles by sea from England instead of nearly four times that distance, Bombay only about six thousand instead of nearly eleven thousand.



Moreover, local geography favored a move into French North Africa in a number of ways. In the first place, the Sahara makes that fertile part of the Mediterranean shore strategically an island, but one of greater resources in foodstuffs than any other part of the southern Mediterranean coast except Egypt. Also, the western part of the region is far from the center of Axis power. Gibraltar is nearly a thousand sea miles from the nearest ports on the Italian mainland, while the excellent harbor of Agadir on the Atlantic coast of Morocco is another five hundred sea miles to the southwest.

The English-speaking powers might indeed have made a lodgement in northern Norway, outside of the range of most of the German land-based air force. When airfields had been established in that lodgement, they might then have pushed an amphibious advance southward on Trondheim, from which region, when taken, they could have forced the Germans either to fight in southern Norway with difficult communications at their back or else to resign themselves to seeing the entrance to the Baltic disputed and the north German Baltic ports harassed by bombing planes. On the other hand, northern Norway has almost no local resources, and is climatically unfavorable throughout much of the year.

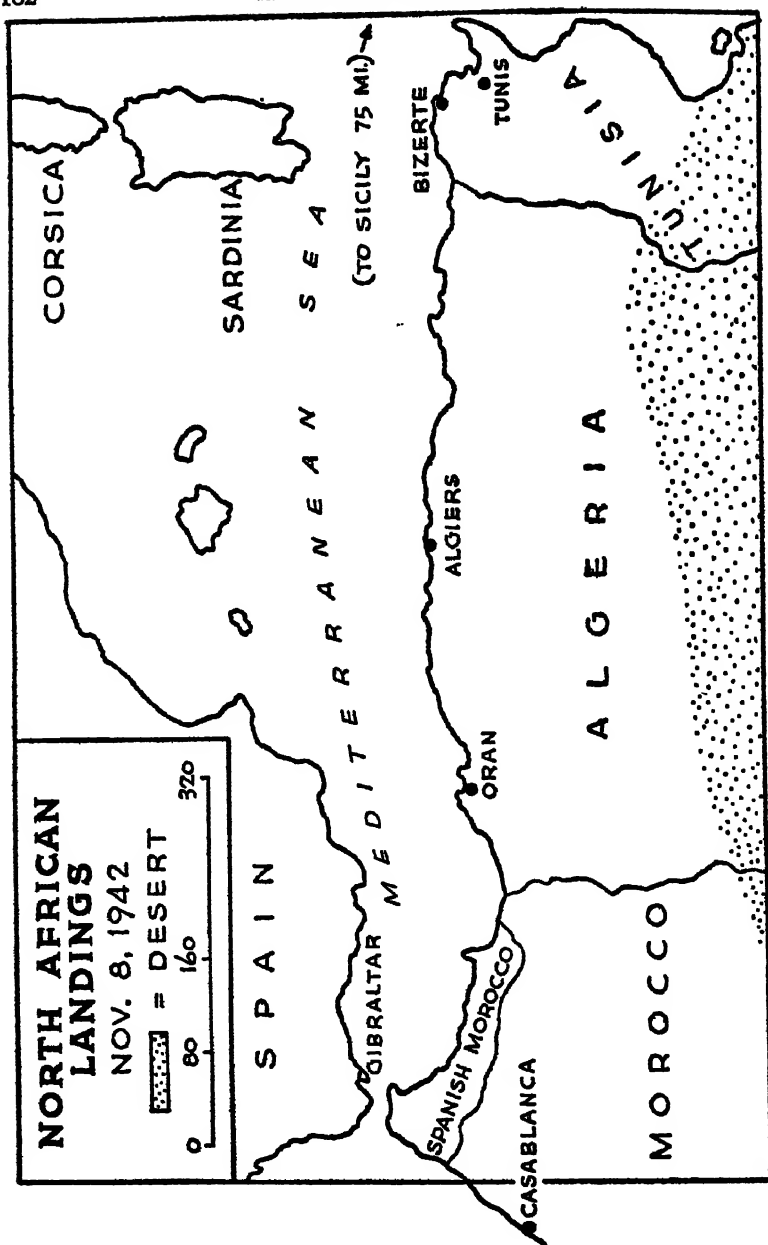
Even before the United States entered the war, but when its entrance and its dispatch of large expeditionary forces across the Atlantic could already be foreseen, the present writer noted in an article called "Where Do We Go from Here, Boys?" published in the July, '41, number of *McCall's* magazine, the "unique importance of North Africa" to what promised to be a joint Anglo-American strategy. That article went on to say that, once past Gibraltar, the North African and Mediterranean theater is "ideally designed for multiplying the effectiveness of an inferior army"—that is, an army numerically inferior to the total of hostile land forces—"by means of superior sea power."

Could the North African operation have been planned as a pure map problem, an advance either against determined opposition or into friendly territory, the militarily conservative course would have been to begin by consolidating Atlantic Morocco, far from existing Axis air bases, meanwhile operating farther to the east only to the extent necessary to protect the early stages of consolidation. An extensive base once established, it would have then been time enough to begin advancing eastward in successive bounds under land-based

air cover, using the fleet to turn whatever resistance might be encountered by landing suddenly and in force in the rear of the defense.

Instead, political considerations dominated everything, offering great possibilities but at the same time demanding the running of grave risks. The crux was the attitude of the local French commanders and officials. Most Frenchmen dislike Germans, who are their traditional enemies. The campaign of 1940 had been the seventh time within a century and a half that German-speaking troops had invaded France. In spite of the strenuous efforts of the Germans there since 1940 to behave "correctly," the humiliation of their presence for more than two years on French soil had not endeared them to the conquered. On the other hand, the French leaders in North Africa derived their authority from the French government of the surrender, the head of which, Marshal Pétain, considered himself morally bound by the armistice which his representatives had signed. Many of the younger French officers were devout Roman Catholics who interpreted rigidly their obligation to the established government of their country. There was much French feeling both against the English, who had found it necessary to inflict further humiliation upon fallen France, and against the Free French, who with their leader, De Gaulle, had revolted against the action of their lawful superiors who had surrendered. Most of all, in order to persuade the North African French leaders to declare for the United Nations in the face of the certainty of their wholesale execution as traitors should the Axis win, it was necessary to reassure them by making a great show of force and by occupying most of the country from the beginning. In particular this meant landing troops near Algiers, the chief city of the region, about five hundred miles east of Gibraltar and not much more distant from the German air bases in Sicily.

There was also political anxiety as to the attitude of Spain, the government of which was naturally sympathetic to the Axis on account of aid given to it in its recent civil war and on the issue of communism. Nearly all the territory on both sides of the Strait of Gibraltar was Spanish. German-made Spanish long-range guns could threaten the passage of the strait, and Spaniards from their own soil could see whatever went on in Gibraltar harbor. Boldness and a show of force, it was thought, might impress the Spaniards.



It was therefore decided to strike simultaneously at three points. American troops coming directly from the United States and supported by American warships would land near Casablanca on the Atlantic coast of Morocco. Other Americans, carried in and escorted by British ships, would come ashore near Oran some three hundred miles east of Gibraltar. The main landings, with the troops also carried and escorted by British vessels, would be made about two hundred miles farther east near Algiers. There the first units landed would be American, since the local French would surrender to and ally themselves with them more readily than with the British. On the other hand, since the British had available troop units which had fought the Germans in '40, while the U. S. Army had not fired an angry shot except against the Japanese since 1918, the greater part of the Algiers landing force—which would be nearer than the other landings to possible Axis reaction—was to be British.

Long negotiations, often extremely daring and dramatic, greatly complicated by the need of secrecy, were carried on between American representatives and a handful of highly placed Frenchmen.

Since too much surf on the beaches would wreck the landing craft, elaborate, long-range weather forecasting was carried on almost to the last moment.

In all the vast armada of transports and warships numbered no less than 850. To delude possible Axis reconnaissance, that part of the invasion fleet which sailed from England first steered westward far out into the Atlantic, then south and finally eastward toward Gibraltar.

On October 24, 1942, at El Alamein the British army of the Nile opened its offensive against Rommel's army with the heaviest barrage yet fired south of the Mediterranean. In the early hours of November 8, with Rommel already in full retreat toward Cyrenaica, the American advance guards began landing in French North Africa.

VII. GERMAN OUTPOSTS FALL

FROM November 8, '42, to June 6, '44, about nineteen months, the United Nations carried on preliminary offensives. In the Mediterranean during this phase the Axis was driven from North Africa, the islands of Sicily, Sardinia, and Corsica, and from the southern Italian mainland including the city of Rome. The legitimate government of Italy first surrendered, then declared war against Germany. In what had been the Soviet Union before the present war the Red Army not only recovered nearly all the German conquests, but also crossed what had been the Polish and Rumanian frontiers. In the Pacific the Japanese lost most but not all of their advanced positions northeast of Australia.

As we saw at the end of the last chapter, about a fortnight before the Anglo-American landings in French North Africa the British in Egypt went over to the attack at El Alamein under cover of a heavy barrage. Indeed, that barrage, for the first time in the present war, was comparable to those of 1916-18. To some extent, at least, like the Allies in the last great conflict, Montgomery, the new British commander, began by throwing at his opponents a vast weight of metal. He made a breach in the Axis line, then, returning to the methods of lightning war, sent forward his armor to achieve a decision. Fortune favored him here, for while Rommel, who happened at the moment to be visiting Berlin, was away the German deputy commander had scattered the Axis armor instead of keeping it massed. Consequently, although the absent leader hastily returned by plane, his coming found his army already defeated. He counterattacked with such armor as he had left, but his blow lacked weight. At best, he could only retreat rapidly in order to prevent defeat from becoming total disaster. Abandoning most of his Italian infantry, the bulk of his force, to the victors, he was approaching the western desert border of Egypt when word came of the new United Nations landings far to the west.

For the first few days in Morocco and Algeria the local French forces resisted the American and English in a series of sharp little actions which, although the motives of the defenders were con-

fused, were far from the comic-opera warfare which the shortness of the resistance might suggest. While these actions lasted they were characterized by the occasional deficiencies inseparable from the baptism by fire of inexperienced troops, together with the inferiority of the French equipment, which was largely of 1918 model. For instance, the counterattack by a part of the famous French Foreign Legion against the Americans near Oran was broken up when the cannon of British carrier-based planes riddled the old French tanks as the latter were passing through a defile.

On November 11, '42, the twenty-fourth anniversary of the armistice which had ended the fighting in the last war, the French forces in North Africa not only surrendered to but also allied themselves with the United Nations. This was done through Admiral Darlan, Marshal Pétain's deputy in North Africa. In the first negotiations some time beforehand, the American policy had been to find some French leader whom the North African French authorities would obey. That leader must neither be connected with De Gaulle and the Free French nor too closely identified with the government of the surrender. Such a man seemed to have been found in General Giraud, a prominent French soldier who had been captured by the Germans in May, 1940, and had subsequently escaped from them. When the North African French leaders would not obey Giraud's orders or rather exhortations to surrender and cooperate, and when Darlan offered to do both, the Americans accepted the latter's offer so that he became, as it were, the head of a provisional French government.

Since the essence of the North African operation had all along been political rather than military, the settlement of this crucial political point decided the issue in that theater. Thenceforward the European Axis—in practice the German Command, which had long been its directing element—had only the choice between trying to evacuate what they could from Africa as ultimately indefensible, and of committing more troops across the Mediterranean to a region in which Anglo-American amphibious power was almost certain in the long run to defeat them. Only by gross Anglo-American military misconduct could the Germans hope to gain a decision south of the inland sea. The American general Eisenhower commanding the United Nations forces in North Africa had only to play his cards prudently in order to win.

The Germans promptly decided to move into Tunisia. If they could maintain themselves there at all they could at least gain time, while to let that province go by default would mean immediate command of the Mediterranean by the English and American navies, the trapping of practically all Rommel's army in Tripoli, and the opening of the Gibraltar-Suez route to United Nations cargo shipping. So sweeping a reverse might turn appreciable sections of world opinion against the Axis. On the other hand, if Tunisia could be held, then Rommel, retreating to that country, would for the time being find himself better placed defensively than before. Further, there was always the chance, however small, that German veterans commanded by experienced staffs might have some success against a coalition of comparatively inexperienced opponents.

At the same time, Axis troops moved into Mediterranean and east-central France, both of which hitherto had been left unoccupied. They also garrisoned Corsica. As the Germans approached the French naval base of Toulon the crews of the French warships there scuttled their ships.

Now that southern France was fully occupied, it would physically have been even easier than before for the Germans to try to close the Strait of Gibraltar by invading Spain. Had Franco and the Spanish Nationalists, the victors of the hard-fought civil war of 1936-39, been the Axis puppets which left-wing publicity throughout the world represented them to be, they would have welcomed such a move. Actually, they did nothing of the sort. Haters of democracy and especially of communism they certainly were, but—since they were Spaniards—they were also men of inflexible pride, together with the realism of Cervantes' Sancho Panza. Pride and realism alike told them to consider first of all the interests of their own country. Pride forbade their permitting that country to play second fiddle to Germans or any other foreigners—least of all to Italians. Realism told them that their people were still too divided not to fall apart in factions if so soon again engaged in war. It also reminded them that neutrality was yielding them economic profits all the more welcome because of their recent sufferings. A story, perhaps not true but certainly probable, represents Franco to have spoken to Hitler somewhat as follows: "Of course, if you invade us,

Spain has not the power to prevent you. But I warn you of two things: First, whatever else may result, your action will certainly plunge my country into another civil war; second, however that second civil war may develop, your supply lines and supply trains moving across Spain will have to be heavily guarded—there will be even more hungry Spaniards than today, and many of them are handy with dynamite. . . ." Since Spain would of course have been blockaded by sea, the Germans may well have shrunk from the prospect of having another ill-nourished country on their hands. In any case, Spain was not molested. As a precaution, certain United States troops were held for some time near the border of Spanish Morocco, but in the event they were not needed.

At this point I turn aside to anticipate the course of Franco-American relations in North Africa and in general of French leadership outside of European France.

Within a few weeks Darlan was assassinated by a young Frenchman whose motives have not yet become publicly known. The North African French authorities, now joined by those of French West Africa with its capital, Dakar, selected Giraud to take his place. Had Giraud and his supporters been more strongly backed by the English and especially by the Americans, they might perhaps have become the heads of a provisional French government recognized by the United Nations. Like most French officers under the Third Republic, however, Giraud was wholly unfamiliar with politics. Also, unlike De Gaulle, he failed to show either political insight or skill. Nor was he consistently supported by the United States. De Gaulle, on the other hand, had in his exile associated himself with certain French politicians, and was hotly supported by several American journalists.

To anticipate events, the leader of the Free French, skillfully playing his cards with reference to French opinion, especially by complaining loudly of any Anglo-American act which could be made out to be contrary to the position of France as a great and independent nation, gradually ousted Giraud from power.

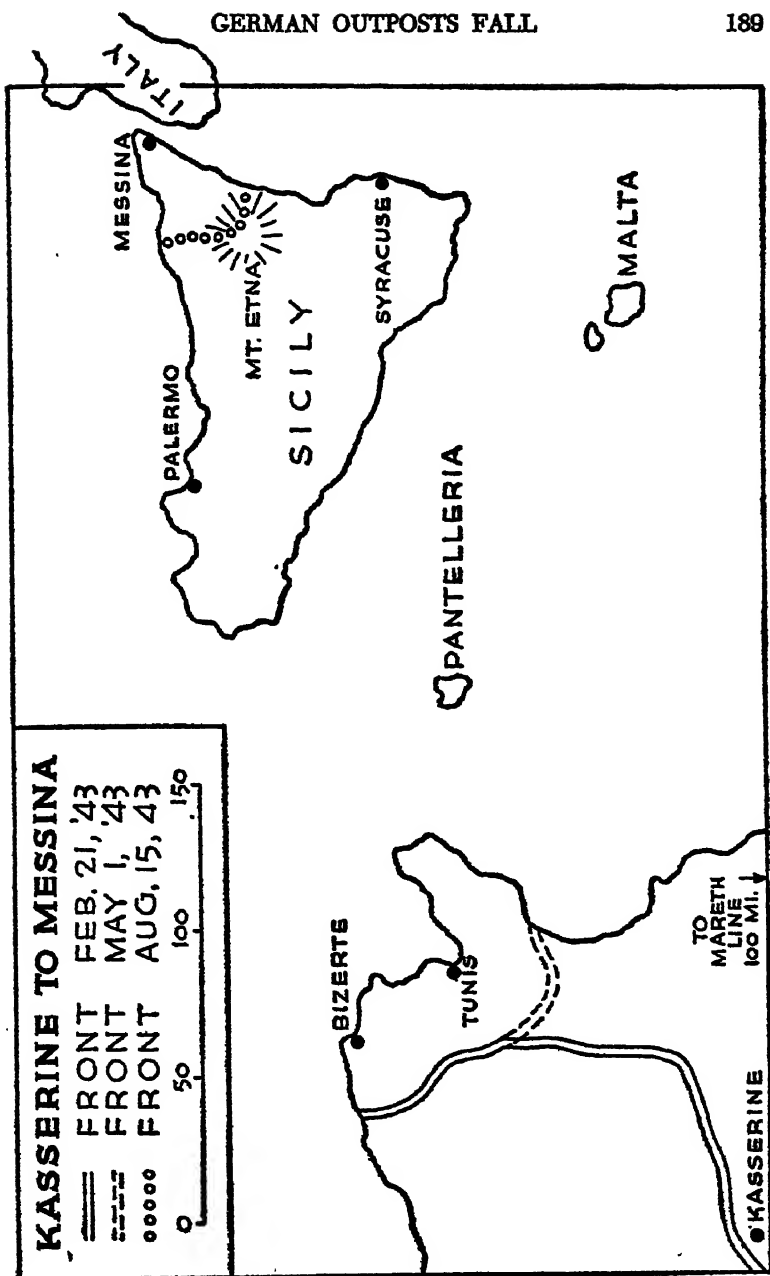
Returning to the second week of November, '42, while the English and Americans pushed eastward toward Tunis and Bizerte, the movement of German troops to those two ports was as prompt as

the decision to send them there had been. Advance guards were flown in. A sort of race began to see which of the two sides could more rapidly build up its forces. Axis planes and submarines also harassed the English and Americans farther to the west.

While the fighting between the small forces of each side swayed to and fro in Tunisia, the tide of battle turned with a rush on the principal land front in the Soviet Union and perceptibly in the distant southwest Pacific. On November 23 the Red Army burst in the flanks of the Axis' Stalingrad salient, defeating successively the Rumanians, Italians, and the hard-fighting Hungarians who had held the flanks of that salient. The German Sixth Army with its twenty-two divisions in the point of the salient, thus isolated in and around Stalingrad itself, could probably have cut its way back to the main body of its comrades while the situation was still fluid. Instead, that army received and obeyed an order directing it to stand and defend itself where it was. While it could hold out, it could indeed keep the oil of the Caspian from reaching central Russia, but unless relieved it must eventually surrender. For the first time in the Soviet Union since June, '41, the stage was being set for a German local disaster.

Just before the critical day of this Soviet feat of arms, small American and Australian forces which had crossed eastern New Guinea from Port Moresby began the attack upon the fortified Japanese posts in the malarious jungle near the northern coast of that island. The advances of the troops concerned and the supply of the fighting fronts were made possible by extensive use of air transport. When a unit had painfully threaded its way forward for a few miles along the jungle trails it would hack out an air strip, a sort of island in the tangled vegetation, and then go forward again. When their fortifications were reached the Japanese fought to the death. The white men, however, were not to be denied. By great exertions a certain number of tanks and field guns were brought up. At the same time, American air and naval superiority cut the sea communications of the defenders so that the latter began to lack food. Before the end of January, '43, all the Japanese posts on New Guinea northeast of Port Moresby had been taken.

On the last night of November the Japanese made a final attempt by sea to reinforce their troops on the island of Guadalcanal. They were repulsed after the infliction of heavy naval losses on both sides,



and thereafter the Nipponese position on the island deteriorated. The last organized resistance was crushed early in February, '43, leaving only fugitives to be hunted down in the jungle.

Back in North Africa the Axis, thanks largely to the existence of organized air bases on near-by Sicily, won the race for eastern Tunisia, although by a narrow margin. The English and Americans succeeded in holding western Tunisia, but in front of Tunis and Bizerte they were somewhat pushed back. German and Italian troops established themselves in the bare, rocky hills bordering the eastern Tunisian coastal plain on the west, and there kept up a series of local attacks. Eisenhower refused to be hurried into a premature general offensive before he was ready. The technical correctness of this decision is said to have been acknowledged by certain German officers then visiting neutral countries, who saw in precipitate action on his part their best chance to defeat him. His land communications were poor. The once excellent roads had fallen out of repair since '39, while the scanty railroad lines and rolling stock had also deteriorated. About Christmas time he might have moved in the southern sector had not the winter rain turned every Tunisian valley into a bottomless quagmire. Americans who had experienced the sticky "gumbo" mud of Texas compared North African mud to it.

Meanwhile, Rommel was retreating westward across Tripolitania along the single coastal road, unharassed by any British attempt to land in his rear. Montgomery was content to follow steadily, occupying Tripoli itself late in January but not approaching the Mareth Line, the prewar French fortifications in southeastern Tunisia, until about March 1. This perhaps unavoidable delay gave Rommel a brief opportunity to add some weight to the Axis side of the seesaw of local attacks between the Axis troops in Tunisia and the English and Americans to the west of them. Late in February an unusually successful German stroke in the south defeated certain American units and allowed the Germans to reach the Kasserine Pass. For a moment it seemed as if the whole United Nations position northward to the Mediterranean might be turned, but by this time the English and American air and ground strength to the west was formidable enough to make the German commander pause, all the more as Montgomery, with the veterans of the Eighth British Army, was now approaching the Mareth Line. Rommel therefore

retreated. Late in March the Mareth Line fell, and throughout early April, '43, the skillful German succeeded in the difficult task of holding off English and American attacks from the west while he retreated up the narrow Tunisian plain for a last stand in the north-eastern corner of the province. At this point Rommel himself was ordered to leave Africa by air.

The Axis forces now stood on a front of about sixty miles, most of it good defensive country of difficult, rocky hills. On the other hand, they now faced greatly superior numbers both on the ground and in the air, while their overseas communications had long been subject to repeated naval and air attacks. After two weeks of fighting a breach was made in their front, whereupon swift mechanized advances to the sea disorganized all co-ordinated resistance at a single bound. The final surrender came just before the middle of May—the Axis delaying action south of the Mediterranean had strung the thing out for more than six months after the first American landings.

An interesting technical point is that the crushing of the Axis' last stand in northeastern Tunisia was almost as bloodless to the victors as the early German lightning victories had been. For the last three weeks' campaign only 2,000 British and 4,000 American casualties were reported, exclusive of French losses, while the total of Axis prisoners taken in Tunisia since November, '42, rose to 267,000. Later counts made it 290,000. Total allied casualties were less than 70,000, including 2,184 Americans killed, 9,437 wounded, 6,937 missing and prisoners. Such is the overwhelming effect of superior sea power acting in a theater favorable to it.

During the winter and the early spring of '43, the Red Army continued to follow up its success of November, '42, west of Stalin-grad. Whatever plans the Germans may have made for relieving the troops trapped there came to nothing. When at last on February 1 the place fell, the front had moved 150 miles to the west. Its fall yielded 91,000 German prisoners. The Soviet gains continued into March, with the Germans holding on only around Novorossiisk on the Black Sea coast in order to keep control of that sea, so important both for naval activity and for transport. In the south by early March Rostov, Voroshilograd, and Kharkov had fallen, and Rzhev in the north. On the other hand, the German retreat was well con-



ducted, with small losses. The Red armies claimed few prisoners. In mid-March a German counterattack retook Kharkov, whereupon the whole Russian front relapsed into comparative calm broken only by local attacks by both sides, most of them near the Black Sea coast.

The events at Stalingrad, together with the rapid English and American occupation of nearly all of French North Africa, provoked a sweeping change in German propaganda and recruiting policy. The German radio put on a "gloom campaign" on the theme that the fatherland was now in danger, and to this melancholy accompaniment an intensive mobilization of German manpower was begun for the first time during the war.

Throughout April, May, and June the huge forces on the Russian front remained strangely quiet, as did the smaller ground forces in the Mediterranean theater. On the German side, although the intensive mobilization had now borne fruit, this quiet began to indicate to close-observers a possible change in German grand strategy.

In spite of the loss of 22 German divisions at Stalingrad, and the equivalent of from 6 to 10 in North Africa, the total again stood at more than 300, exclusive of 40-odd administrative or depot divisions. Nearly a third of the operational German divisions stood in the west and south; perhaps 10 in Norway, 40 in Holland, Belgium, and Northern France, 15 in the Balkans, 16 in Mediterranean France, and another 16 in Italian territory. There were also central reserves near the Rhine. In the Soviet Union there were about 190 German and perhaps 30 satellite divisions. These last seem no longer to have included any Italians. The Finnish divisions numbered 12, the Rumanians less than 10, and the Hungarians 8. There was also a Spanish volunteer division. At the same time the name of Vlasov, a former Soviet general who had gone over to the Germans, began to be mentioned. He was now head of an anti-bolshevik Russian movement of which the political platform was the restoration of the Orthodox Church and peasant ownership of land. His anti-bolshevik army—probably recruited largely from former Red Army prisoners released on their promise to serve—was rumored to be large. On the other hand, since the Germans themselves credited Vlasov's forces with no feats in combat, we may assume that they were used chiefly to guard rear areas and especially lines of communication. Including perhaps as many as 70 Italian

divisions, the total German satellite divisions may have numbered 150, making a grand total of more than 450 directly or indirectly at the orders of Berlin.

In the air the Germans were believed to have between 5,000 and 6,000 operational planes, of which about 2,000 were operating against the Red Army. Including from 500 to 1,000 Italian planes, the Axis air strength in the Mediterranean area was estimated to be between 2,000 and 2,500. The remainder of the German Air Force, perhaps 500 planes, was on the Atlantic air front facing England.

Notwithstanding these formidable totals, it was already possible to suppose that Berlin had given up hope of forcing a decision. The future was to show that this was indeed the case. Whether the loss of the German Sixth Army on the Volga could have been retrieved if Darlan had not joined forces with the United Nations in North Africa, we shall never know. Certainly, however, the Anglo-American threats made possible by that adhesion, although still comparatively small, were likely to grow rapidly. The Italian political situation was visibly becoming shaky. Accordingly, the German grand strategy was thenceforward to become a vastly magnified version of Frederick the Great's. That talented atheist had at last tired out the enormously superior numbers of the coalition against him. So in the present case the huge military and administrative machine centering in Frederick's capital under the leadership of the strange little Austrian, Hitler, resembling Frederick in nothing but daring and in supposed indifference to women, might again survive. Between communist Russia and the other comparatively traditionalist Allies, the present coalition was ill assorted. If sufficiently fatigued and bled, it might dissolve as that of 1793 had done.

The pause in ground operations which had followed the German recapture of Kharkov and the Axis surrender in Tunisia was first broken in the Mediterranean. In that theater, so well suited to air and naval operations, from their admirable North African bases the English and American air forces had been ranging far afield. In order to carry through his original mission of opening the inland sea to United Nations shipping, the logical direction of Eisenhower's next move was northeastward from Tunisia into Sicily. Sardinia,

although desirable, was secondary. In the tideless inland sea amphibious operations are best timed by the moon. The favorable moment for a landing is after a moonless night, during which hostile air reconnaissance must work in full darkness. When such an occasion has been lost, a month must go by before equally favorable conditions return. In the present case a month was allowed to pass before attacking little Pantelleria, eastward from northern Tunisia, although a successful campaign in Sicily must have brought down this smaller island.

The taking of Pantelleria has a certain technical interest because it was trumpeted by English and American airmen as the first capture of territory by pure air power. The dimensions of the place are only ten by three and one-half miles, and as in so much of the Mediterranean area a chief difficulty is an insufficient supply of fresh water. After eighteen days of persistent air bombardment, supplemented toward the end by naval bombardment of the little, rocky islet, the first landing parties to go ashore in the early hours of June 12, 1943, received the surrender of the garrison, variously stated as from 8,000 to 18,000 strong. While that garrison was suffering from thirst, later experience of Japanese resistance on small Pacific islands indicates that what was most lacking, as in other instances of Italian surrenders, was the will to fight. Another month then passed without further ground operations.

On July 6, '43, before the next Mediterranean landing, at long last the Russian front became active as the Germans attacked both flanks and the center of the Soviet's Kursk salient with thirty divisions, half of them armored. The attack was made with massed tanks, many of them of a new model, but its gains were small. After a little more than a week it was broken off, and the Red Army, also well supplied with tanks, went over to the counter-attack.

In comparison with the 500 miles of front in Russia assaulted in '42 and the 1,500-mile front reached in '41, this last German effort was a small affair, covering a curved frontage of less than 200 miles. In fact, its small scale seemed to show that it had no far-reaching objectives, but was undertaken merely to disarrange Soviet offensive plans.

On July 10, '43, four days after the opening of the German attack near Kursk, English and American troops landed on both sides of the southeastern corner of Sicily, the Americans on the left. The Axis radio reported other landings, or at least attempted landings, near the western capes, but inasmuch as nothing was afterward heard of these we may safely put them down as feints.

The Sicilian attack differed altogether from the original North African landings in that there was little possibility of surprise. The thing was what an American football team would call a straight "power play." We may also liken it to the trench-to-trench attacks of 1915-17, except, of course, that the air forces with their range of hundreds of miles now executed the preliminary bombardments, which in the last war were fired by the artillery. In such an operation, the only opportunity for deception is in the timing of the assault. In the Mediterranean even that, as we have seen, was closely limited by the moon, but of course some leeway was possible. The preliminary bombing was concentrated upon Axis airfields to an even greater extent than the artillery bombardments of 1915-18 had been concentrated upon the defending artillery. The location of the landings was governed by the obvious fact that the nearest land controlled by the United Nations, i.e., Malta with its abundant airfields, was only sixty-odd miles from the landing beaches and therefore well within the effective range of fighter planes. So straightforward was the whole plan that one might have imagined Eisenhower and his British subordinates repeating the saying of the elder Moltke: "In strategy we must do the simplest and most natural thing with firmness and circumspection."

Parachute landings preceded by a few hours the first English and American landings on Sicily. The landing troops found the beaches lightly fortified and manned by not very determined Italian garrisons. Accordingly, although the tactical air support and the anti-aircraft work was poor, and the aircraft recognition service so defective that friendly planes were fired upon more often than should have been the case, nevertheless the beachheads were made good. For a moment the left of the American sector, which was also the extreme left of the entire landing, was endangered by a German tank attack which nearly reached the landing beaches, but the position was restored and was not seriously threatened. On the third day of the operation the British on the right took the useful little

deep-water port of Syracuse, so that heavily armored tanks could thenceforth be landed.

The combined English and American footholds in southeastern Sicily once firmly established, the conquest of the island could next be undertaken. Sicily, Trinacria as the ancients called it, is a triangular island about 150 miles from east to west and about 100 from south to north along its eastern base, most of it rocky and mountainous. In front of its northeastern corner rises the great white cone of Mt. Etna, which with its plume of smoke dominates the neighboring seas. Just beyond that corner, across the Strait of Messina, only a little more than two miles wide at its narrowest point, lies the toe of the Italian boot.

On such a chessboard, the operation somewhat obviously begun in the southeast had its best chance of destroying the Axis garrison if Messina on the Sicilian side of the strait could be quickly reached. We may fairly suppose, therefore, that the original plan was for the British on the extreme right to advance rapidly northward up the east coast to cut off the retreat of the defenders. What seem to have been feigned landings near the western tip of the island were probably intended to unbalance the defense by detaining Axis units far from the critical eastern sector.

If this was indeed Eisenhower's plan, the Axis garrison, although not strong enough to hold the island, was at least able to keep itself from being pushed away from its line of retreat across the strait. Most of the German troops, equivalent to about three and a half divisions, were brought into action against the British push up the east coast, which they succeeded in delaying. On the left or western flank, however, the Americans, urged on by their commander Patton, then a lieutenant general, were able after two weeks of fighting over the rugged Sicilian terrain to make a rapid bound of thirty miles forward to the north coast and seize Palermo, the island's principal city, against opposition which toward the end was negligible. Thence, turning eastward, they advanced along the north coast. While such a move merely pushed the enemy backward along his line of communications and therefore could not achieve his destruction, it nevertheless forced him into his last Sicilian defensive redoubt, the Etna line covering the island's northeast corner on a front of about fifty miles, half of which were militarily impassable because of the great mountain. The eastern flank of this

strong position, where a single road ran along a narrow shelf between the mountain and the shore, was reached by the British on August 6, twenty-seven days after the original landing.

Meanwhile, in the last days of July the Italian political position began to turn over, as the tie which bound that unwarlike country to the Germans stretched and shredded like an ill-made rope under a strain which is about to snap it. King Victor Emmanuel not only dismissed but promptly arrested Mussolini, the Italian symbol of the Axis. The fall of the dictator, whose power had been legalized by the fact that he was the King's prime minister, did not immediately take Italy out of the war. The new prime minister, the aged Marshal Badoglio, gave every outward assurance of an intention to continue the struggle on the German side. Nonetheless, it was clear that further political shifts were on the way.

From the beginning the Italo-German alliance had suffered from the mutual contempt of the two peoples, the Italians despising Germans as uncouth and repulsive barbarians, while the Germans despised the Italians as unsoldierly. The European Axis had by no means been altogether hollow like the cynical German-Soviet treaty of August, '39; Mussolini had built his whole foreign policy upon it, and both he and the active nucleus of the Fascist party were too firmly committed to withdraw. Nevertheless, something had remained of the traditional Italian friendship for England, now powerfully seconded by the strong popular feeling for the United States, forged by the presence of the Italian immigrants there. It has been well said that no European people, and certainly not the Italians, has any deeply rooted reason for hating Americans. Now that the tide had started to turn against the European Axis both in Russia and on Italy's doorstep in the Mediterranean, most of all after so many specifically Italian defeats and losses, the Italo-German alliance began to seem the unnatural, artificial thing which at bottom it had always been. From industrial northern Italy riots in favor of peace were reported.

In early August while rumors of secret Italian negotiations for peace began to buzz loudly, the Axis position on the Etna line was more and more closely beset. As we saw earlier in this chapter, the German grand strategy had changed from the offensive to a defensive dedicated to gaining time and inflicting loss. For the German Command Sicily was a mere delaying position, cut off from the

mainland only by a narrow strait but nevertheless an island vulnerable to Anglo-American amphibious power—subjective military thinkers, preoccupied with the plane as an instrument rather than objectively concerned with the sea or land areas to be controlled, have called it “triphibious power.”

Thanks to Eisenhower's delay over Pantelleria, nearly three months had passed since the Axis' surrender in Tunisia and nearly four weeks since the first English and American landings on Sicily. Thus if we put the German troops committed to that island at three and one-half divisions, this modest commitment, certainly not more than half and perhaps only a third of the former German commitment in Tunisia, had paid large dividends of delay.

For some time the only question had been how much of this small investment in men and material could be brought back from the cramped Etna position to the European mainland in the teeth of Anglo-American air and naval strength. In order to make that difficult retreat possible, the Germans massed all available anti-aircraft batteries on both sides of the strait. This move had a measure of success. After Messina fell on August 17 the English and Americans made no claim of prisoners, and published no statement of their own losses for the thirty-eight-day campaign. In general, however, Eisenhower's troops and staffs were improving. In Sicily air support of ground troops became noticeably better after the early stages.

With Sicily conquered, the original mission of the English and Americans in the Mediterranean, the freeing of that sea to their shipping, was accomplished. Accordingly a review of their over-all position and future strategy toward the European Axis was now in order.

Since the check to the German offensive in Russia, the Red Army had succeeded in straightening its front on either side of what had been the Kursk salient and maintained the initiative. In the south the Axis still held Crete, Sardinia, Corsica, and the northern coast of the Mediterranean from Turkey to Spain. In the west the United Nations' losses in their air offensive against the Continent were still heavy but were being absorbed, chiefly by American arrivals. About a fortnight before Messina had fallen, the Ploesti oil fields in Rumania, the chief Axis source of natural as opposed to synthetic fuel oil, had been bombed by American planes probably based upon

Cyrenaica, but the attackers had suffered a loss of about 40 per cent of their numbers—a fact as to which the President, perhaps unintentionally, confirmed Axis statements some weeks after a grossly misleading United States air communiqué had been published. In the air war as a whole, air supremacy was still far from being achieved. At sea, however, more German submarines than United Nations ships were being sunk.

For the Anglo-American leaders the position in the air, the lateness of the season, with the summer of '43 almost over, and the political state of Italy were the principal factors to be considered. Decisive attack against the Germans in the west, which was geographically possible from England, was ruled out both by the lack of a sufficient margin of air superiority and by the near approach of the autumn gales in the Channel. Even assuming that sufficient troops could have been concentrated in time, a regular flow of supplies could hardly have been assured. Now, to establish a foothold on the northern French coast and then to hold that foothold with the sea at one's back meant, as always, undesirable losses of shipping. Accordingly, the question came to this: Did the political possibilities justify an invasion of the Italian mainland? Or was it better to economize force by holding Sicily defensively, carrying on the war in the Mediterranean chiefly by air and sea and at most occupying other islands there, while building up strength in England for a decisive attack in the spring of '44?

This decision was probably the most difficult and certainly the most doubtful of all those made by the Combined Anglo-American Chiefs of Staff and their respective governments during the war.

Politically an Italian invasion might gain much. There was no reason to doubt the desire of the King and Badoglio to turn against the Germans as strongly as they could. An Italian change of front would certainly affect world opinion, especially in the German satellite states. On the other hand, the extent of the King's power relative to the Fascist party and still more to the Germans was doubtful. Moreover, southern and central Italy are poverty-stricken regions which if occupied would be economic liabilities. The industrial north, which has also the best agricultural land, was precisely the district which the Germans and Fascists had the best chance of holding. Economics and political doubts notwithstanding, the political possibilities were tempting.

Specifically military considerations pulled in the opposite direction. Could there be in real life such a thing as "pure" strategy wholly divorced from policy—which of course is impossible—then the only two things in favor of invading Italy would have been first that the English and Americans were morally certain of getting ashore there on the mainland and of finding Germans to fight with, second that the dissolution of the Italo-German alliance would compel the Germans to find more troops for holding and policing the Balkans and the Aegean islands. The distribution of Italian troops was peculiar, in that nearly a half of the total of about seventy divisions were east of the Adriatic while only about a quarter stood on the Italian mainland. In practice the combat value of the Italian units would be almost nil. Badoglio himself in his secret talks with Anglo-American representatives has been quoted as saying that he doubted whether his best divisions, stationed around Rome, would fight to prevent a German occupation of that capital.

Geographically and climatically an invasion of the Italian mainland promised ill. The toe of the Italian boot is nearly six hundred air miles from what was then the nearest point in the Reich, by road of course very much farther, especially as nearly all of the advance must be made over mountains and rugged hills, excellent defensive country and ill adapted to the forward movement of any considerable force. The inhospitality of the Italian winter climate had also to be reckoned with. At that season the rivers, nearly all of which flow at right angles to the line of advance, are swollen and the valley floors are seas of mud. Few military forecasts have been as completely justified by events as that made by Hanson Baldwin in the *New York Times* for September 4, '43, the day that a British landing on the mainland side of the Messina straits was announced: "Unless our objectives are limited ones in southern Italy—in other words, something short of the complete conquest of all Italy—we may well be starting the toughest and longest campaign that we have yet fought."

In the actual event an attempt to conquer the entire country was decided upon, indeed had probably been decided upon long before Sicily fell.

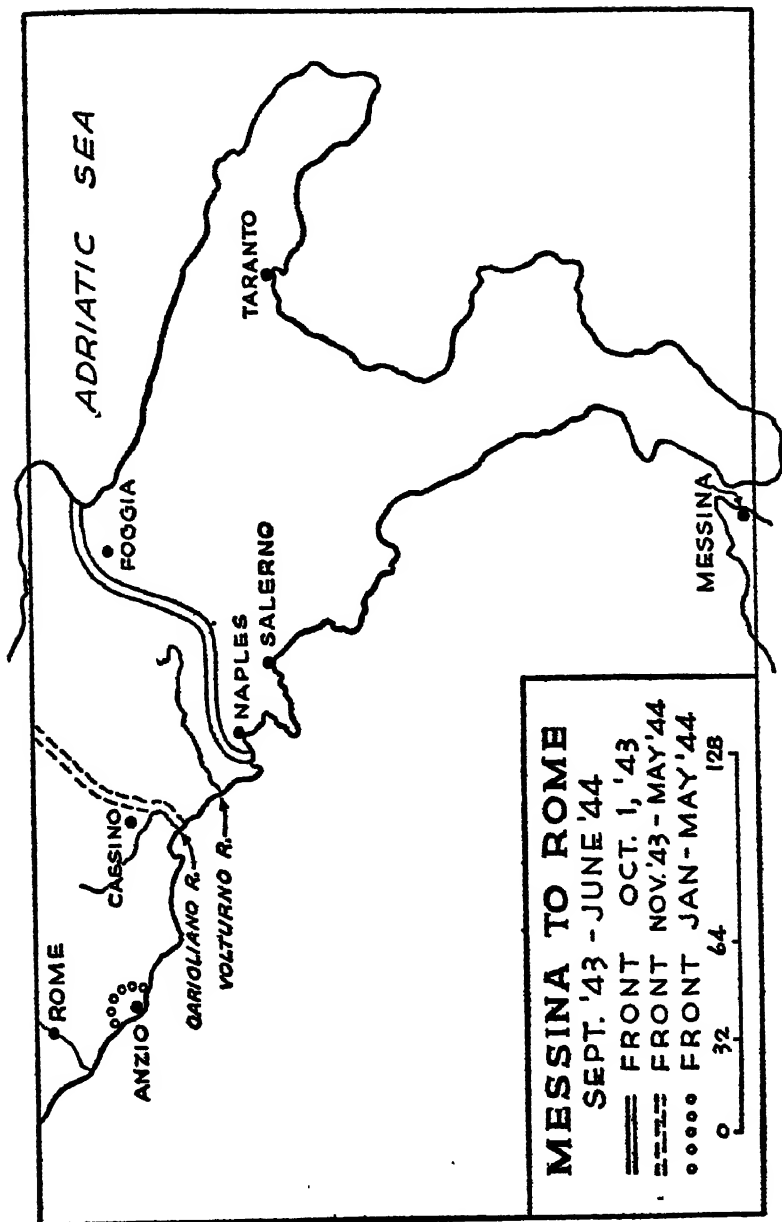
British policy, looking toward the European situation after the war, was undoubtedly a factor. Whereas the United States wished little more than to defeat the Axis as quickly as possible in order to

go home, the British were inevitably enmeshed in a series of European complications. To end the war with English-speaking armies in occupation of Italy might strengthen the British position in the Mediterranean. It might also help to keep the Italians from going communist and therefore pro-Soviet. Strategically, a prompt success there might lead to a Balkan campaign, always a favorite project of Churchill's, which in turn might help to block the possible return of the traditional Russian desire to dominate Constantinople and the Dardanelles. In so balanced a matter such considerations may have had the casting vote.

On September 9 the surrender of the Italian government and an Anglo-American landing "near Naples"—actually in the Gulf of Salerno—were simultaneously announced. A more ambitious plan to land parachutists near Rome in order to join the Italian troops there against the Germans had been abandoned in consequence of Badoglio's justified pessimism as to his own troops. The attack opposite Messina had been intended to hold at least some of the Germans in the south, but the somewhat transparent maneuver failed, and the Salerno landings were promptly and vigorously counter-attacked.

The fighter air support for the Salerno operation was provided by a novel technical expedient. Since the beachheads were nearly two hundred miles from the nearest point in Sicily, in other words about double the effective range of fighters, the fighters covering it had to be flown from carriers. So that the necessarily limited number of these fighters might not be further diminished by detachments circling protectively over the seven British carriers assigned to cover the landing, the latter steamed to a position intermediate between the Sicilian airfields in Anglo-American hands and the landing points, and were there protected by fighters based on Sicily. In principle the idea is somewhat like the "advance by bounds" of light artillery before the advent of self-propelled guns, with half the batteries limbering up and going forward alternately, halting and unlimbering again within the limit of the cover furnished them by the other half.

As in the early stages of the Sicilian campaign, attacks by German armor against the Salerno beachheads resulted in a few bad moments. The excellent German artillery observation from the mountains looking steeply down upon the Salerno beaches added to the



English and American difficulties. Not until September 14, six days after the original landing, was the beachhead secure.

Within forty-eight hours of the time when the first units had gone ashore near Salerno, the Germans occupied Rome without serious fighting. Most of the Italian fleet succeeded in gaining Allied ports, although one battleship was sunk by a lucky German bomb. The British presently made a second landing at Taranto on the sole of the Italian boot, and on September 16 the British Eighth Army, which had begun landing opposite Messina twelve days before, gained touch with the right wing of the Salerno forces.

About this time Italian arms made their one positive contribution to the campaign in Sardinia. The five Italian divisions there turned upon the single German division, most of which succeeded in retreating to Corsica. What became of the four Italian divisions which had garrisoned this second island is not clear. In any event the few Germans almost immediately found themselves threatened by a rising of the notoriously hardy and turbulent population, assisted by certain French troop units which had been shipped in from Africa. Early in October the whole island was in French hands.

On the mainland the Germans retreated slowly northwestward. Foggia with its great airfields near the Adriatic shore, and some hundred air miles from Taranto, was not occupied until late in September. Naples, where the retreating forces sabotaged the public utilities of that city and added to the damage already done by United Nations bombers in the harbor, was entered on October 1. Nine days later Eisenhower's forces reached the line of the Volturno River, ten miles farther on, but throughout the next thirty days they were able to advance less than twenty miles to the line of the next river, the Garigliano. There they remained substantially on the same line from November, '43, until late in May, '44, contending with the obstinate resistance of perhaps eleven German divisions and still more with cold, rain, and mud. In general the combined English and Americans are estimated to have outnumbered their ground opponents by three to two. In the air their superiority was greater, but during much of the period mist and low clouds prevented effective air support. Most of the short advances made were preceded by heavy and prolonged artillery fire, which the Germans

usually opposed only by pack howitzers and *Nebelwerfers*, i.e., rocket launchers, which are lighter than field guns but have less range and accuracy. From time to time green units replaced experienced troops which were withdrawn for rest in positions of readiness for the massive stroke which, as all the world knew, was to be launched from England in a bid for a decision against the Germans in the west. Preparations for that offensive also held down the number of landing craft and trained crews available in the Italian theater.

This winter campaign of hardship and stalemate in allegedly "sunny Italy"—how the troops must have cursed that phrase!—was the direct consequence of the considerable measure of failure in the original gamble accepted in early September, '43, which, had it fully succeeded, would have given us all or at least most of Italy at a stroke. Information on the winter climate of that peninsula must have been laid before the Combined Anglo-American Chiefs of Staff and their civilian commander in chief when the plan for invading the mainland was finally approved. It is of course just possible that that information, and still more the history of the few modern campaigns fought on Italian soil, were insufficiently digested by the individuals responsible for final decisions throughout the planet. The reports of Championnet, the French Republican general who waged in southern Italy in 1798 apparently the only winter campaigns in that region for centuries past, are said to represent the country as almost impossible for large forces, even with the comparatively low civilian standard of comfort which then obtained.

On the other hand, it cannot be too often repeated that success in war is possible only by accepting heavy risks. Once English and American troops had been committed to the Italian mainland, the only thing to do was for them to go on attacking the Germans there as best and whenever they could. If the military dividends thus earned were not as high as might have been hoped, nevertheless they existed. Although Mussolini, whom the Germans had rescued from his Italian royalist jailers, succeeded in setting up a fascist republican puppet state which preserved to the Germans the industrial resources of the Po valley, still the Germans undoubtedly lost more men by fighting in southern and central Italy than they would have lost had they retreated to the Alps. Notwithstanding

their success in delaying the Allies in the Italian mountains, their later resistance in France may well have been weaker than it would have been had they not suffered some losses in the peninsula.

In the American part of the Italian winter campaign the chief incident was the fighting around Cassino. From the neighborhood of Naples two highways lead to Rome, each following the general trace of an ancient Roman road: the Appian Way along the coastal plain and the Latin Way through a long defile in the mountains some twenty-five miles inland. In this defile stands the town of Cassino, the ancient Casilinum, and above it rises a precipitous spur of rock upon which in the Dark Ages St. Benedict had built the first monastery of his famous order, which played so great a part in the regeneration of Europe. By one of the innumerable and pathetic chances of war, this site together with the extensive masonry of subsequent additions to the monastery formed a strong defensive position in which the Germans established themselves and from which, month after month, they could not be driven.

A first attempt to break the resulting deadlock by varying Anglo-American strategy was made late in January, when a landing was effected on the western coast about forty miles beyond the Garigliano-Cassino front and only about thirty miles south of Rome, obviously in the hope of cutting off and destroying the Germans on the Cassino front, at least to cut some of their communications and thereby compel them to a difficult retreat. The advanced parties were met only by observation patrols which fell back without resistance, the small ports of Anzio and Nettuno were seized, and around them a roughly semicircular beachhead of about seven miles radius was established. Presently, however, the Germans reacted vigorously, Allied air superiority wholly failing to have any appreciable effect upon their movements, until presently about nine German divisions succeeded in stabilizing the new front—a number almost equal to those of their comrades on the Garigliano-Cassino line. Although the mere existence of the little beachhead was a potential threat to the old German front, for the time being its stabilization was strongly in German favor. Not only was its entire area so thoroughly searched by German planes and most if not all of it by artillery that “Anzio anxiety” and “Messerschmitt twitch” became proverbial among its defenders. Its maintenance was also costly to shipping. Probably it was chiefly fear of the consequent loss

of prestige which prevented retreat from this unfortunate and for a long time useless position, perhaps also fear of the increased shipping losses to be expected should a transport fleet numerous enough to evacuate the troops have been assembled.

Since the original plan for the Anzio landing clearly did not include a prompt dash forward by armor against the German communications—in the event the Latin Way was not even threatened, and even the Appian Way seems not to have been effectively and permanently cut—it is hard to see why the operation was undertaken at all.

A second attempt to break the Cassino deadlock was made in mid-March, this time by means of an extremely heavy bombardment of the town and especially of the monastery. Between eight-thirty and noon of March 16, '43, 3,500 tons of bombs were dropped on a target of less than one square mile, "the smallest area to receive so great a weight of bombs in such a short space of time." Thereupon, in the words of Hanson Baldwin, a prominent American air general "rushed to the microphone" and broadcast that the place had been so "fumigated" that it could easily be occupied by the ground troops. In addition he solemnly warned the Germans of similar destruction which would fall upon them in the future. After this boasting the Germans maintained their position until May 19.

The reasons for this second fiasco were as obvious as in the case of the Anzio landing. Ever since the last war it has been a military commonplace that excessive bombardment so tears up the surface of the ground that assaulting elements can only inch forward over it. Hence determined defenders, all of whom have by no means been put out of action, can occupy the shell or bomb craters, which afford them admirable positions, and from which they can resist strongly. It is also commonplace that strong stone or other fireproof structures are actually strengthened from a defensive point of view by being bombarded with high explosives, as the bringing down of much of their upper parts increases the overhead protection for their cellars without killing or paralyzing their garrisons. In the present case, it is an eloquent commentary on the inaccuracy of air bombing that it was judged necessary to withdraw the Anglo-American ground troops more than half a mile from what had been their position before the first wave of planes came over. Consequently after the bombard-

ment the Germans, far from being annihilated or even driven back, actually had time to move forward in the devastated area in front of the line which they had previously occupied and to withstand the subsequent assault successfully from their new, advanced positions.

In commenting on the whole proceeding one can only note the long-continued evil influence exercised by Italy upon Anglo-American strategy.

During the stalemate in Italy throughout the fall of '43 and the following winter the submarine warfare and the air campaign, based chiefly on Britain but now on Foggia as well, went steadily on.

Throughout the year '43 prodigious United States naval building raised the aggregate tonnage of United States naval combatant vessels from 1,300,000 to more than 2,200,000 tons. By autumn the total naval tonnage including noncombatant vessels was nearly 5,000,000 tons. In mid-October Portugal, England's oldest ally, which had nevertheless remained neutral throughout the present war, made an important contribution to the defense of allied shipping by granting to England and the United States the use of air bases in the Azores Islands. Planes were proving effective enemies of the submarines, not because they sank many but because they could keep the undersea boats submerged during the daytime. There had been an irregularly shaped gap in the middle of the North Atlantic, of about 600 miles west of England but of 2,000 miles west of Gibraltar, which could be effectively covered by aircraft based neither in the eastern hemisphere nor on points like Bermuda and Newfoundland to the west. Portugal's action made it possible for land-based planes, necessarily somewhat more efficient than carrier-based machines of corresponding type, to cover nearly all of this "gap," where only carrier-based planes had previously been able to operate.

In the overland air campaign in the west, in spite of the rising scale of British and especially of American effort, the Germans had some success by means of a defensive strategy similar to that of their strategy as a whole. By concentrating their plane manufacture on the production of fighters they were able to inflict heavy losses upon the American bombing force. Over the town of Schweinfurt in mid-November no less than sixty U. S. bombers were shot down

while attacking the ball-bearing works there, in addition to other losses incidental to the operation. Thereafter for some time American raids were shorter in range and smaller. Nevertheless, the constantly increasing Anglo-American air forces persisted in their plan of beating down the German antiair defenses by mere numbers and in attacking ground targets with constantly increasing weights of bomb. A new, heavy bomb, the so-called "blockbuster," was said to be able to devastate an entire section of a city; it would penetrate more than twenty-four feet of earth and blast a crater nearly fifty feet wide. It is unpleasant to be forced to say that the bombing campaign in the west as well as in Italy was accompanied by boasts even on the part of certain responsible U. S. air commanders which seem to have considerably exaggerated the results obtained.

The limitation of Anglo-American ground activities to the Mediterranean throughout 1943 of course displeased the Soviets and their communist allies, or rather subordinates, throughout the world. Their clamor for a second front could have been satisfied only by an invasion of France, for which the Western sea powers were not yet fully prepared. As late as October the communist agitation for such an invasion was continued. Behind this agitation there was always the threat, publicly unspoken but constantly repeated in private by English-speaking leftists, that the Soviets, who had been allied with Berlin from '39 to '41, might make a separate peace which would leave the Western Powers to face the Germans and the Japanese alone. Although the English and American leaders remained unmoved, this continually repeated bolshevik demand was seldom publicly answered with the same completeness with which William L. White privately answered it during his visit to the U.S.S.R.

"The first front when Poland fell—with us this is number one. You remember that. The second front was in 1940 when France fell. Surely that is not forgotten in Russia, even though you were neutral. The third front is the invasion of Yugoslavia and Greece. Again you were neutral, but you remember. The next front is when Hitler attacks the Soviet Union in 1941. We were very sorry to learn it. For us it was the fourth front. The fifth front is when Japan attacks America and England and we must both fight in the Pacific. Here again you are neutral. The sixth front is when England and

America land in North Africa to chase the Germans and Italians out. The seventh front is when we have landed in Italy. . . ."

Nevertheless, during the long stalemate in Italy the Soviets and their sympathizers could at least point to the fact that the Red Army, although not without setbacks, had advanced far to the west. Late in August the large city of Kharkov had been taken, and not long afterward neutral sources significantly reported that Germans bombed out of their homes were no longer being evacuated to Russia. The numbers of the Red Army now seem to have considerably exceeded those of their opponents. With the initiative in Soviet hands on so vast a front, overwhelming force could be concentrated upon such sectors as might be chosen for attack. Before mid-September the Reds cleared the Donetz basin with its rich mineral deposits. Before October they had retaken Novorossiisk on the Black Sea and Smolensk in the north-central sector, and had occupied most of the east bank of the lower Dnieper.

Unlike the strategy in every other theater, that in almost roadless Russia was dominated by railroads. The Russian lines, begun later than those of the United States and still later than those of western Europe, have the widest gauge of the three, while those of non-Russian Europe have the narrowest. While the Germans advanced, their construction engineers had habitually narrowed the gauge to that of their own rolling stock by leaving one rail in place and moving the other toward it. At the same time they had sawed off what was to them the superfluous length of the sleepers, both to save timber and to make it more difficult for the Soviets to re-establish the old wide gauge in the event of a German retreat. Consequently the Red Army seldom advanced directly up a railroad, well knowing that a line so treated would long be useless to them even if recaptured. Instead the Red commanders' object was to deprive the Germans of rail communications, and to this end they would habitually penetrate into the zone between two railroads, then, striking sideways, cut one or both lines behind points still in the hands of the invaders. For supply they depended largely upon American-manufactured trucks.

As on the one hand strategy depends upon transport, on the other hand it depends upon tactics, which are a matter of weapons and most of all of men. For centuries no one has denied that the Russian soldier is a first-class fighter. His physical endurance, especially his

resistance to cold, is astonishing. Many Russian mechanics are reliably reported to be able to grasp metal barehanded in subzero temperatures at which such a thing would tear the skin from the hands of men of other nations. Compared with soldiers of European peoples more experienced in machine tending and most of all with Americans, the chief defect of Russians with regard to today's mechanized warfare is that practically none of them have grown up among machines. Their present leaders are of course acutely aware of the importance of machinery, and many individual Russians are noted for their intelligence and quickness to learn. Nevertheless, their average of ability either to manage and repair machines or to grasp any sort of mechanical complexity is not up to that of more western peoples.

As we peer through the thick veil of Soviet secretiveness we can see events only dimly and in large outline, but what we can see accords closely with these fundamental characteristics. Soviet military thought has indeed stressed the importance of industrialized matériel, both as to artillery and as to the newer mechanized arms. For their policy of emphasizing close air support of ground troops instead of "strategic," i.e., long-range, air bombing there is much to be said, as we shall see in more detail in Part III of this book. The Red Army may have more tanks than any other, certainly it has them in great numbers, and builds its whole offensive tactic upon their use in masses, more so perhaps than does any other army. Nevertheless, something of traditional Russian primitiveness seems reflected in Soviet operations. If the comparatively short range of each of their armored advances against resistance are partly attributable to local circumstance, they may also result from lack of Western ability in machine maintenance. Certainly their shift from using armored divisions in '41 to splitting their tank forces into independent brigades seems like tactical retrogression. It is also significant that most of their advances have been made in winter when the iron-like hardness of the frozen ground offers firm support to mechanized movement while putting a premium upon human endurance.

Maneuvering in this way, the Soviet armies continued to move forward throughout the autumn of '43, the following winter, and most of the spring of '44. In October they so extended their bridgeheads west of the Dnieper that the whole German position along

the lower half of that great river was threatened. In November they took Kiev, the former capital and traditionally holy city of Russia. Still pushing westward, they forced the invaders from two railroad junctions about 130 miles west of Kiev on the main north and south line just east of the 1939 Soviet border. At this point, however, their communication difficulties became serious, and for nearly a fortnight the Germans went over to the counteroffensive, temporarily retaking both junctions, which remained in their hands until about New Year's. Nevertheless, the Soviet advance, once resumed, was continued. The offensive salient west of Kiev was first pushed westward across the Polish border, then southward toward Rumania. In the north some ground was regained near hard-pressed Leningrad. At the same time the German retreat on the whole was skillful and orderly, without any such disaster as that at Stalingrad. As the Germans' communications became shorter and their front more contracted, they were able to maintain themselves with fewer troops; probably from 180 to 200 Axis divisions now sufficed where 220 to 230 had formerly stood. Toward the end of winter, as the advance continued, the German Balkan satellites began visibly to waver.

In March the Red Army, still advancing, crossed the Dniester, reached the Prut, and on the extreme southern flank took Vernoleninsk on the shores of the Black Sea. In May, as the spring thaws with their bottomless mud began, Sevastopol was taken, but the Germans were able to save most of the Crimean garrison by sea. Weather then halted active operations.

Although some observers charged the German High Command with weakness and vacillation in not sooner withdrawing their Crimean troops and attributed this to the personal interference of Hitler, the point is not certain. It should not be forgotten that Foch was subsequently praised for having insisted during the defensive phase of his 1918 campaign that no ground should be given up without a fight.

From February to July of '43 the only ground action in the Pacific was the American recapture of the Aleutian island of Attu from the Japanese in May, an operation which served little strategic purpose. The difficulty of keeping in touch with one's enemy in the fog-bound Aleutians and the consequent unimportance of that

archipelago was vividly shown in August, when a landing operation against the island of Kiska found that the Japanese had evacuated the place.

In the southwest Pacific Guadalcanal had originally been considered as a steppingstone toward the advanced Japanese base at Rabaul on New Britain, but for such an operation the available troops were found to be insufficient, chiefly because of the excessive sick rate from malaria, which demanded long periods of recuperation in a better climate. In the equally unhealthy jungles of New Guinea, Salamaua and Lae were taken in September, American chutists playing a considerable part in the capture of the latter. Finschafen followed in October. Further advances were made on Bougainville in November, but thenceforward it was decided to put a larger part of the U. S. Pacific effort into the central Pacific, where the atolls and other islands are healthier because of the absence of jungle. What we have already characterized as the prodigious U. S. naval building program now made it possible to put into practice a somewhat more ambitious strategy, hoping rather than fearing that the Japanese fleet might come out and fight.

In November, Marines landed at Tarawa and other neighboring Gilbert islands southeast of the Marshalls in a move which continued the amphibious strategy of straightening the elbow-shaped course between Hawaii and Australia to which the Japanese south-eastward advance early in '42 had condemned us. In proportion to the comparatively small number of landing troops, the conquest of Tarawa was costly. Practically all the Japanese there, as usual in the present war, fought to the death, and their opportunities for inflicting loss were increased by various chances of war. Nevertheless, Tarawa itself, where the fighting was hottest, fell three days after the original landing.

About the same time MacArthur and his staff began to experiment with a new strategy built chiefly around the long-range land-based bomber and the transport plane. The leading idea was that in this theater, where military movement was almost wholly by sea or air, it was not necessary to assault each of the many Japanese garrisons. Most of these, when once their air and naval support had been virtually cut off, could safely be left behind in establishing a series of air bases just near enough together to serve as steppingstones. That series could be indefinitely extended as long as no large land

areas need be continuously occupied, and while neither Japanese air nor sea attacks need be feared. The neglected garrisons would then be imprisoned in the jungles on the landward sides of their isolated coastal footholds. In other words, with a minimum of naval support among the archipelagoes the long-range plane would permit strategic penetration so deep that the whole position of the Japanese might be endangered.

The first moves in MacArthur's new strategy were on a comparatively small scale. Indeed, they could not have been otherwise, for as late as November, '43, his headquarters authorized the statement that less than 5 per cent of U. S. military resources were already in his theater and that less than 10 per cent of current military shipments were going there.

Nevertheless, MacArthur's air- and sea-borne progress, although slow at first, was as steady as his operations overland in New Guinea had been in '43. In March, '44, after seizing the essential airfields which commanded the Admiralty Islands north of eastern New Guinea and northwest of Rabaul, he publicly announced that the general direction of attack would be no longer northward but westward, adding significantly: "We are now only 1,300 miles from the Philippines."

The further development of this westward movement, although its beginning falls within the time limits of this chapter, is best considered in the next because it directly prefaced the launching of the attack on the Philippines, the success of which practically cut off the newly conquered Japanese oceanic empire from the home islands of Nippon. The same is true for the air campaign which preceded the decisive Anglo-American landings in northern France. Before turning to these attacks, however, we should note certain developments in Burma and in Italy.

Burma, as we saw in the last chapter, constituted the sea terminus of the only overland route to Free China, and had been occupied by the Japanese in the most westerly of their land campaigns during the early months of '42. As a glance at a large-scale map will show, organized land communication through the jungles and across the mountains of Burma's western border before the war was practically nil. With most of the Anglo-American fleets either in the central Pacific or in western seas, land operations in the

Burmese theater were substantially at a standstill throughout '43. Without detracting from the admirable performance of the best Indian units in many theaters, it must be admitted that the average showing of the native Indian army against the Japanese was not brilliant. In spite of the capital importance to the Chinese theater of reopening overland communications with Chungking, American reinforcement of the Indian theater was confined to air units, the British naturally preferring to reconquer their own lost territories with imperial forces. Nevertheless, the personnel of certain Chinese divisions had been flown to India over the American air transport route, of which the astonishing performance has shown both the capabilities and the present limitations of planes as carriers, and in India had received American equipment and American-directed training. In the spring of '44 these divisions, with American air support and a few American ground troops, began to advance from Ledo in the middle Brahmaputra valley into Burma, their objective being to open a new land route which would connect with the old Burma Road. At the same time an independent Chinese force advanced across the difficult mountains southward from Free China along the line of that part of the old road.

In a bold but unwise attempt with the ultimate objective of cutting the communications of the advance from Ledo, the Japanese advanced over the difficult mountain trails of the central part of the western Burmese border upon Imphal, the capital of the little mountain state of Manipur. They may have hoped that the occupation of this little patch of Indian soil might touch off political trouble throughout Hindustan. In a military sense, however, their enterprise was easy to defeat, since not even Japanese ability to subsist on little could compensate for the total want of organized communications. After a few local successes, late in April the tide turned against them about a month after their first crossing of the border. The British reported finding the bodies of a number of Japanese who had died from disease incidental to malnutrition.

Meanwhile, undeterred by the weak threat in Manipur, the advance from Ledo had been steadily continued. Late in May, '44, that advance was nearly two hundred air miles from its starting point and had almost wholly surrounded the Japanese garrison of Myitkyina, the northern terminus of the railroad which reaches the sea at Rangoon. Around Myitkyina the troops of the United Nations

stood within less than a hundred air miles—across rugged and almost trackless mountains, to be sure—of the nearest part of the old Burma Road.

In Italy in May, '44, Allied reinforcement of this unpromising theater, combined with the coming of better weather which made a greater measure of air support possible, finally broke the long deadlock. The local German command may have expected the main attack to come from the unhappy but stubbornly maintained Anzio beachhead against their right flank and rear. Perhaps because that beachhead was too cramped to hold sufficient troops, only secondary thrusts were made from it, the principal push being made on the western part of the old southern front from the sea to Cassino, where so few German men and guns had so long held out. Notwithstanding the deadly threat to the enemy of encirclement by an advance from the beachhead, that advance when made trapped few of the defenders of the southern front. A masterly German retreat, against which the Anglo-American airmen again demonstrated their inability to prevent German movement in Italy, kept down the number of German prisoners to about sixteen thousand.

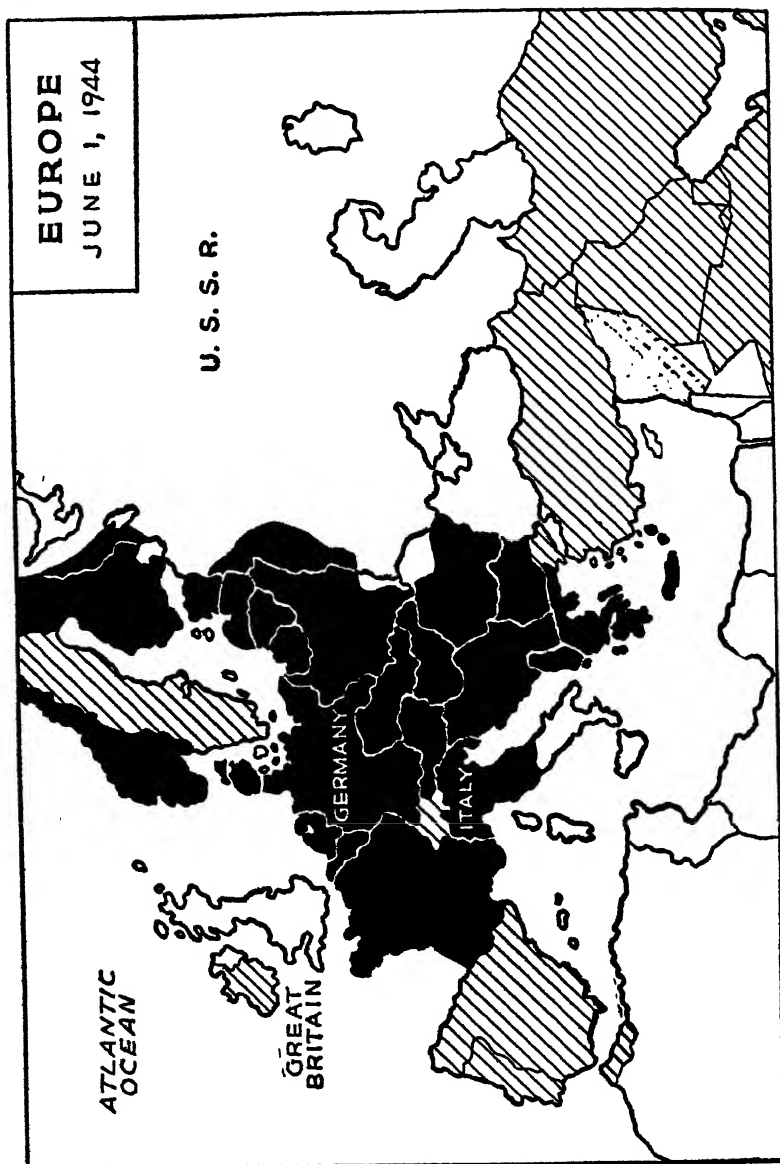
In Rome itself the Germans made no fight. Evidently wishing to spare it for its historical associations as the cradle of Western Christendom and the capital of the most numerous of existing Christian bodies, they retreated northward through it. On June 4, less than forty-eight hours before the coming of militarily far more important news, the so-called Eternal City was occupied by English and American troops.

VIII. 'DECISIVE ATTACKS LAUNCHED

BETWEEN June 6 and October 20, '44, the United Nations launched decisive attacks against both Germany and Japan. By the end of that period in the German theater the German border had been victoriously crossed in both east and west. In the east all the German satellites except Hungary had fallen away, and the end, however distant in time, was obviously in sight. In the Japanese theater the conquest of the Philippines, strategically the core of Japan's southern conquests, had been begun, and the little men from Nippon could hardly hope to reverse the tide which was flowing strongly against them.

In the west in the opening days of June, '44, the German territorial position was what it had been for nearly four years. In the east, however, and to some extent in the south, that position had been appreciably amputated by the preliminary offensives considered in the last chapter. Whereas in November, '42, the European Axis had held a triangle of land about 2,000 miles on a side, by June, '44, the southern base of that triangle had been reduced to about 1,400 miles by the lopping off of its eastern part, together with an irregular strip of land stretching northward from the Caucasus and the Black Sea to the Arctic Ocean. On the southern side, although the Balkans, Crete, Rhodes, and the other Aegean islands were still held, southern Italy had been lost, while the United Nations' possession of Corsica was a threat to the neighboring coasts of Italy and France.

In the west, England constituted a far greater threat of invasion than Corsica. The Americans and English made no secret of their intention to attempt a decisive stroke across the Channel. Indeed, the freedom of movement conferred upon them by their command of the sea permitted them to menace any point along the German-occupied Atlantic coast. The success or failure of their amphibious operation, if made in strength, was certain to shape the future of the war. Should it fail, the Germans might then be able to concentrate nearly all their forces against the U.S.S.R. Should it succeed, then between the Soviet and the English-speaking powers the German position would be desperate.



Between the Soviet and the western threat, the Germans possessed the advantage of interior lines. Had they still possessed a powerful strategic reserve they might perhaps have prepared to shuttle that reserve to and fro between France and the Soviet Union, so as to be for a time superior in numbers either against an Anglo-American beachhead or against the oncoming Red Army. As they looked at the map of Europe, the historically minded officers of the German Staff undoubtedly remembered Napoleon's movements on interior lines in 1796 and '97 and again in 1813 and '14. Now, however, the strength of their forces was already so reduced that they felt themselves compelled to commit practically all their divisions in the general area of one front or another. Even had they still possessed a strategic reserve, mid-twentieth-century conditions would have reduced the chances of success in the always dangerous shuttle maneuver below those in the old wars. Today the use of wireless—to name only one factor—makes it much easier than it was a hundred years and more ago to co-ordinate the efforts of forces operating on exterior lines, no matter how far distant from each other.

In the spring of '44 the chief concern of the Germans, as evidenced by their radio, was with the coming Anglo-American invasion. Their main land front, as always, was that in Russia; about three-fifths of their total strength, say 192 out of 325 divisions, stood between the Black Sea and the Arctic Ocean. On the other hand, most of the eastern front still ran far to the east of any vital German holding. Between the Pinsk marshes and the Black Sea the Soviets were within less than 200 miles of the precious Rumanian oil fields at Ploesti, but the marshes themselves—the principal military obstacle in this part of Europe—were still in German hands, and on the 750-mile sector northward from them to the Gulf of Finland there was still much room within which space could be traded for time.

In the west, on the contrary, Calais is not much more than 20 miles from England and by air not much more than 150 from Paris. Between southern France and northern Norway there were from seventy to seventy-five German divisions, less than a quarter of the whole; but there the German Staff, appreciating and even overrating the difficulties of forcing a landing on a hostile shore, almost certainly thought that they had a chance to score a resounding vic-

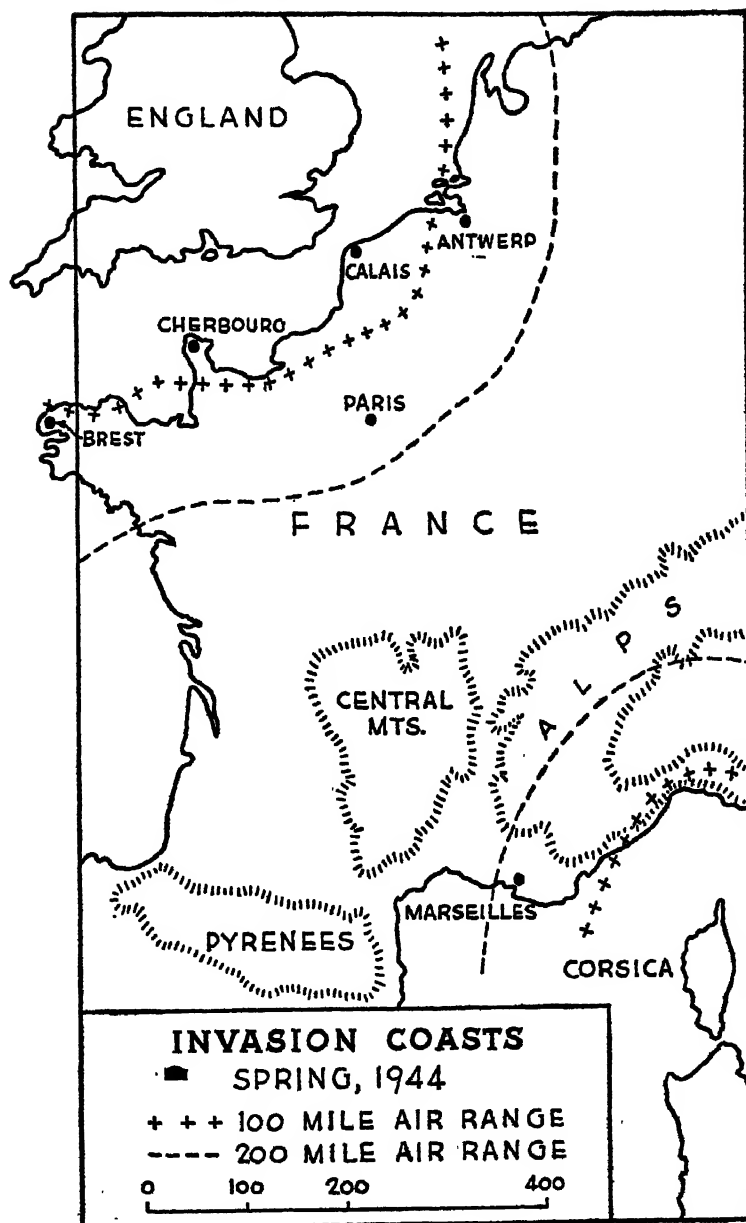
tory which would largely free their hands for operations elsewhere.

Throughout all recorded history those difficulties had been found to be very great, so great that few such landings against a strong defense had ever been attempted. Gallipoli, the one major operation of this kind during 1914-18, had ended in failure. In the summer of '42 the Dieppe raid had been repulsed with heavy loss. Since then, comparatively small German forces had been able to threaten seriously the early stages of both the Sicilian and the Salerno beach-heads, while that at Anzio had been contained without undue difficulty for about four months. Accordingly, although the full extent of Anglo-American aerial and amphibious power remained to be tested, Berlin had as yet no reason to despair.

In the west in the spring of '44 a decisive attack against the Germans could land only on the coasts of France and Belgium. Norway with its deeply indented and mountainous coast was an outlying position, the fall of which could not immediately lead to an invasion of Germany itself. The mournful Danish and German North Sea shores were difficult of access. Holland is so cut up by water barriers as to be almost impregnable if adequately defended.

German-occupied France and Belgium formed a salient the tip of which was covered by neutral Spain. Western and northern France are parts of the great north-European plain which extends across northern Germany and Poland, and thence stretches eastward across the immensity of Russia. Mediterranean France, however, is cut off from Spain by the formidable barrier of the Pyrenees and from Italy by the even greater obstacle of the Alps. Also the movement of armies or of goods in bulk across the watershed between the inland sea and the Atlantic is canalized by the mountains which the French call the "*Massif Central*." Between that central mass and the northern outliers of the Pyrenees there is a single easy saddle, the gap of Carcassonne, less than thirty miles wide between the 2,000-foot contours. Between the *Massif Central* and the western outliers of the Alps there is only the even narrower trench through which the Rhone flows swiftly to the Mediterranean.

Axiomatically the weapon of longest range fixes the general pattern of any operation, even if that weapon by itself is by no means decisive. Accordingly we must next overlay Franco-Belgian geography with the pattern of air warfare, of which the critical factor is the volume and the effective range—about a hundred miles—of



land-based fighter planes as shown in the sketch on the opposite page. Within the two-hundred-mile line, as Salerno had shown, "steppingstone" fighter operations were possible from carriers; but even these, although stronger than unsupported carrier operations, must necessarily be far weaker than adequately based air support from the land.

Obviously, therefore, the main amphibious blow must be struck from England against the Franco-Belgian coast between Antwerp and Brest. Although strenuous sanitary methods had greatly reduced the ever present malaria of Corsica, nevertheless the small size and poverty of that island, together with its distance from the French coast, made it a suitable base only for a secondary stroke.

Nevertheless, a secondary landing in the Mediterranean, especially if it preceded the principal attack based on England, offered great possibilities. The German garrison of France south of Lyon was known to be comparatively weak, probably only the equivalent of six to twelve divisions, as against the fifty-odd divisions in northern France and the Low Countries. Against thinly spread defenders operating far from the centers of German power, whatever support the irregulars of the French "resistance" movement could furnish, especially in interrupting communications, would be more effective than against more concentrated enemies. Consequently it might well have seemed best to open the campaign from the south, in the expectation of gaining a large land foothold promptly and cheaply. The Germans would then have been in a painful dilemma. Either they would have had to let us build up our considerable southern holding into a serious ground and air threat to their rear along the Channel coast, or else they would have had to commit appreciable reserves in order to drive us back in the south, which reserves would then be absent just when they might be most needed to deal with our main blow in the north. In spite of the *Massif Central*, once we were ashore in force in Mediterranean France their position in the remainder of that country would have been most difficult.

In the event, a considerable Anglo-American activity went on in the western Mediterranean in the early spring of '44, which might well have persuaded the German Command that our first landing in France would be on the Mediterranean coast. Whether this activity was from the first intended as a feint, or whether the original

intention was indeed to move first in the south, is not yet publicly known.

Across the Channel the situation was now the reverse of that of 1940, with the capital difference that the English and Americans, unlike the Germans after the fall of France, were overwhelmingly superior at sea. Since submarines are impotent where hostile warships and planes are abundant, the only German naval opposition to be feared would be comparatively feeble torpedo attacks by fast motorboats.

In the air, on the other hand, at the beginning of '44 the Germans were still formidable. Since the vast invasion fleet would be an ideal target for air bombing, through the late winter and spring of that year a persistent Anglo-American air campaign, the greatest of its kind ever seen, was waged against the *Luftwaffe*. The obvious difficulty in such an operation is that the bombers of the defending side cannot be forced to accept battle. When adequately sheltered or concealed on the ground, they cannot be attacked at all. In this sense the defending planes resemble the "fleets in being" of the old naval wars, secure within fortified harbors which could be taken only from the land side. On the other hand, an offensive air force, unlike the superior fleets of former days, by attacking the defender's territory can at least compel a part of his planes, i.e., his fighters, to accept battle in the air. The scales are indeed heavily weighted in favor of the defender, who can oppose comparatively cheap fighters, each with a one-man crew, to the costly offensive bombers with their larger crews and their escorting fighters. Accordingly, such uphill work can be attempted only with great superiority of force. In the present case that superiority at last existed and was vigorously used.

From February, '44, until the landings in early June and thereafter, English and American planes persistently attacked, taking for their targets German airfields, especially those within fifty miles of the Channel, factories directly supporting the German air effort, and German communications in and behind the invasion zone. Coming as a climax to the indecisive but strenuous bombing campaigns of '42 and '43, in the main that of '44 at long last succeeded. For many of its details we must wait for fuller information. As to its length we should note that prewar German military authorities

such as von Seeckt in his *Thoughts of a Soldier*, the English translation of which was published in 1930, rejecting Douhet's idea of an almost instantaneous victory in the air, believed that the gaining of definite air superiority over a powerful opponent would be a long business.

For the scale of the early '44 air effort and its rate of loss—if indeed the latter be frankly stated without the intentional ambiguities found in some air communiqués—we may take the following figures from a chart published in the *New York Times* of May 14, '44, covering twenty-eight of the thirty days beginning with April 13 and ending with June 12 of that year. The chart shows an average of 2,830 planes per day to have been over Germany and German-occupied territory, losing only 18 machines per average day, a little more than six-tenths of 1 per cent.

The air bombardments of the spring of '44 were as definitely a preliminary to surface assault as the ground bombardments of 1914–18. Fortunately the idea which fevers the imaginations of too many airmen, i.e., that their flying artillery by itself might defeat a powerful enemy, although it may have led to an overemphasis on air as opposed to ground effort, was never seriously considered by the highest English and American authorities.

When the preliminary air bombardment had been judged sufficient, the amphibious surface assault would be launched against the Franco-Belgian coast. In addition to air cover, the assaulting units would also be supported by naval bombardment from the sea. Airborne troops would be landed either from gliders or by parachute in order to seize selected localities.

The greatest pains had been taken to facilitate landing and supply over open beaches, in order to "bridge over" the time before a large, deep-water port could be seized and put in serviceable condition. To this end immense fleets of various sorts of landing craft and of amphibious "truck-barges" capable of movement both in the water and on land had been prepared. Beach mats of flexible steel netting to make the beaches firmer had also been made ready. Only a few years ago so gigantic an achievement of design and production for amphibious movement would have seemed impossible. The whole procedure of fighting one's way ashore had been rehearsed not only in repeated maneuvers but also in actual practice

in repeated landings both in the Mediterranean and in the Pacific ever since '42.

On the French coast still another novelty, hitherto untested, was to be attempted: no less than the creation of artificial ports by sinking in comparatively shallow water long lines of old ships heavily ballasted for the occasion, in order to form breakwaters behind which the transports and cargo carriers could anchor in smooth water and there discharge men and matériel into the smaller craft which would take both ashore.

Notwithstanding the near miracles of amphibious preparation, the seizure and operation of a port in which large ships could land their burdens directly upon terra firma was still the necessary climax of the operation.

Within the 450 miles of invasion coast there remained the choice of the sector to be attacked. The northwestern coast of France thrusts out three peninsulas. The westernmost, that of Brittany, widens out to a north and south front of nearly one hundred miles at a point rather more than that distance eastward from the tip. Hence if the English and Americans could get ashore there in force they would have room to maneuver so that it would be difficult for the defense to contain them. Also, Brittany is rich in ports: It has not only the great harbors of Brest, Lorient, St. Nazaire, and Nantes but also a large number of smaller but useful anchorages. On the other hand, of the larger harbors even Brest is more than one hundred miles from the nearest English airports, while the other three are definitely outside of land-based fighter range. Moreover, the Breton coast is rocky, and even more dangerous to navigate than the rest of the Channel—which is difficult enough.

The easternmost of the three French peninsulas is the blunt projection of the Pas de Calais, of which the tip is not much more than twenty miles from English soil. Here, if once ashore in force, the landing troops would widen with every advance the front which the Germans must try to hold against them. Further, it would be strategically desirable to land there, inasmuch as the Anglo-American forces would be nearer to the centers of German power than in the other areas considered. Nevertheless, the Pas de Calais, together with the adjacent Belgian coast, was difficult both geographically and militarily. Although the Belgian beaches are good, most of the

French shore in that region rises in high steep cliffs, and all the ports for more than eighty miles in either direction from the tip are second- or third-rate places. Moreover, the German garrison there was far stronger than in any other accessible sector.

The tip of the central peninsula, that of the Cotentin, of which Cherbourg is the chief port, is not much more than sixty miles from the nearest point in England. Cherbourg itself, although incapable of handling as much cargo as the larger Breton ports, is nevertheless a well-equipped harbor with a fine big anchorage inside of the outer breakwater, the stonework of which is too broad and massive to make its effective destruction practicable. The west coast of the Cotentin is indeed rocky and covered in advance by the strongly fortified and garrisoned Channel Islands, but on the east side and for some seventy miles eastward again the coast has good landing beaches. Best of all, the northward thrust of the peninsula gives to the waters seaward from those beaches a most valuable degree of shelter from the prevailing westerly winds and ocean swell. The drawback to the Cherbourg peninsula as an objective is the comparatively short front which defenders of the region immediately behind it need hold against invaders advancing from the sea. At its narrowest its neck is not much more than twenty miles wide, and until one advances either westward beyond Caen or southward beyond Avranches the defensive front is less than seventy miles.

The intervals between the three peninsulas are clearly unsuitable for landing. That between Brittany and the Cotentin, like the west coast of the Cotentin itself, is covered in advance by the Channel Islands, while nearly all the coast between the Seine and the Somme consists of cliffs.

Notwithstanding the narrow frontage inland from Cherbourg, it was decided to attack the central peninsula. When the operation was first discussed early in '43, the landings on the eastern side of the neck were to be prolonged eastward only a little way beyond Isigny, a frontage of only about twenty-five miles, but with the enormous production of landing craft it was later found possible to extend the left flank far to the east to a point opposite the interval between Caen and Bayeux, making a total frontage of about seventy miles.

An elaborate feint involving the embarkation of an appreciable number of troops in certain harbors of eastern England was made

against the Pas de Calais, in order to keep the German Command in doubt as to where the blow would fall.

There remained the timing of the operation, which was governed as in the Mediterranean by the moon, but in a very different fashion. In the inland sea the dark of the moon was what was wanted, but in the Channel the moon's secondary effect in raising and lowering the tide every twelve hours was the essential point. In that water the average tidal rise and fall is about sixteen feet—much greater than anywhere on the Atlantic coast of North America south of the Bay of Fundy. Ordinarily under such conditions the first landings would have been scheduled for dawn on a day when the first light coincided with the last of the flood, so that the leading elements, whose tactical task was peculiarly difficult, might have the benefit of high water. In the present case, however, the Germans were known to have placed obstructions, the tops of which were just below high-water level, to catch the landing craft. Accordingly, so that the combat engineers preceding the first wave of assaulting troops might begin the operation by opening passageways through these obstructions, the assault had to be made on a day of the month when low tide coincided with the first light, because the obstructions would then be visible above water.

Finally the weather, as in all landings, most of all in the easily roused water of the Channel, had to be carefully watched.

In the event, long before the secondary landing in Mediterranean France was actually made, the Channel operation was first scheduled for June 5 and then postponed for twenty-four hours on account of weather conditions. Finally, after a wait which must have strained the nerves of the Anglo-American High Command, advance guards coming from England went ashore on the east side of the Cherbourg peninsula and on the Norman beaches farther to the east on the morning of June 6, '44; the Americans on the right, the British on the left.

In most cases, as had been expected, the landings were made good. Except perhaps in the Pas de Calais, the initial German defense was necessarily spread thin. In an estimate by the well-known military commentator Major George Fielding Eliot, heavily weighted in favor of the enemy like all worth-while staff studies, it was concluded that the absolute maximum average strength of actual German coast defense would be four miles per battalion—not

quite one man for every seven yards of front, assuming battalions at full strength and divisional reserves of half the initial front line. On the first day much of the resistance came from fortified houses on the crest of the dunes or low cliffs just back of the beaches. The stout French buildings had been further strengthened from within so that each was a miniature strong point, while their unchanged outward appearance had made them largely immune to bombardment. On the second day, June 7, the weather became uncertain but on the third it improved. By the sixth day, June 11, a continuous beachhead about seventy miles wide and in places ten miles deep had been linked up. During the second week ashore at least thirteen opposing German divisions had been identified, while in the United States' sector only a little over 3,000 had been killed and less than 13,000 wounded. A few days before the landing the total of U. S. troops already overseas in the various theaters had been officially put at well over 3,500,000, and within a few weeks the strength of Eisenhower's inter-Allied command was revealed as more than 1,000,000.

We had now won the first round. Probably our skill in solving the difficulties of so complex an operation had surprised the enemy. No general counterattack had pushed us back into the sea. Certainly our air and naval bombardments had at least somewhat hindered German movements. Perhaps at this stage the German Command had felt itself forced to hold back its reserves for fear of other landings which might take in flank and rear its forces who were resisting the original attack. The press spread rumors of other possible landings. How much of this was bluff is not yet publicly known. At all events, amphibious strategy is so flexible and can choose its striking points so freely that the German Command could not wholly disregard such threats.

On the other hand, the issue would remain in doubt until we were able to use a good port. Until then reinforcement and supply would be largely at the mercy of the weather. Indeed, not long after the original landings a storm seriously damaged one of our improvised breakwaters of intentionally sunken ships.

In the second week of the campaign the Germans introduced a technical novelty, the robot bomb. Partly perhaps in the hope of disorganizing Eisenhower's English base, certainly through mere desire to harm a hostile country even though the injury was unlikely to benefit the doer strategically, the Germans launched these

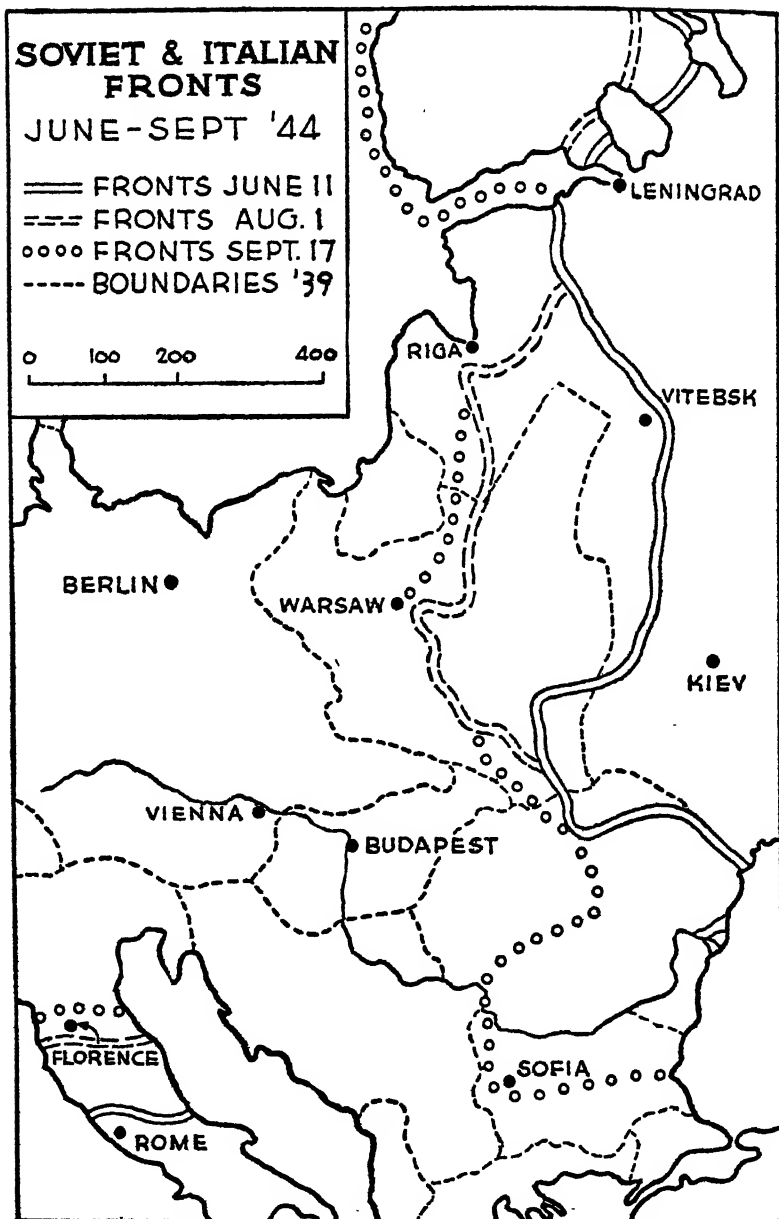
self-propelled projectiles against southern England, aiming, it would seem, chiefly at London.

Since the launching points of the robots were believed to be in the Pas de Calais, the Anglo-American Command might have been tempted to attack that region. Instead that command steadfastly pursued its primary objective of seizing the port of Cherbourg. On June 19, the thirteenth day of the operation, the westward effort of the Americans on the Allied right finally reached the western shore of the Cotentin. Even then the Germans cut off in the Cherbourg region held out for eight days. Cherbourg itself fell only on June 27, three weeks after the original landing. Its fine anchorage behind the outer breakwater immediately became available. When its docks should be put in order the greatest of our difficulties would be over, and the loss of the war by Germany would be in sight. Still no major German counterattack developed.

More than a thousand miles away in the east the Red Army was gaining in Finland, and had crossed the Polish border north of the Pripet marshes. Early in July Minsk and Kovel fell, and Vilna was entered. In the admirable defensive country between the marshes and Leningrad the German retreat was orderly, and in that region there was still room to trade space for time.

Nevertheless, the German grand strategy was breaking down. The Soviets were rapidly approaching East Prussia. In Vilna they were less than one hundred miles from the prewar German border. In Italy the English and Americans had taken 25,000 prisoners since the beginning of their offensive late in May. The lack of a strong central German reserve was threatening to prove fatal. Even in the west where Berlin had hoped for victory no great German blow had been struck. Time was now running furiously in favor of the United Nations, for through Cherbourg a flood of American reinforcements was pouring in. Eisenhower's new arrivals in France were averaging 25,000 a day, so that by August his continually increasing strength would approach 1,750,000.

In Normandy the Germans were at least resisting stubbornly. There as one leaves the sea he enters a countryside exceptionally suitable for defense. Many of the roads are deeply sunken between steep banks crowned by hedges of interlaced and strongly rooted saplings. Other banks similarly crowned and almost as formidable

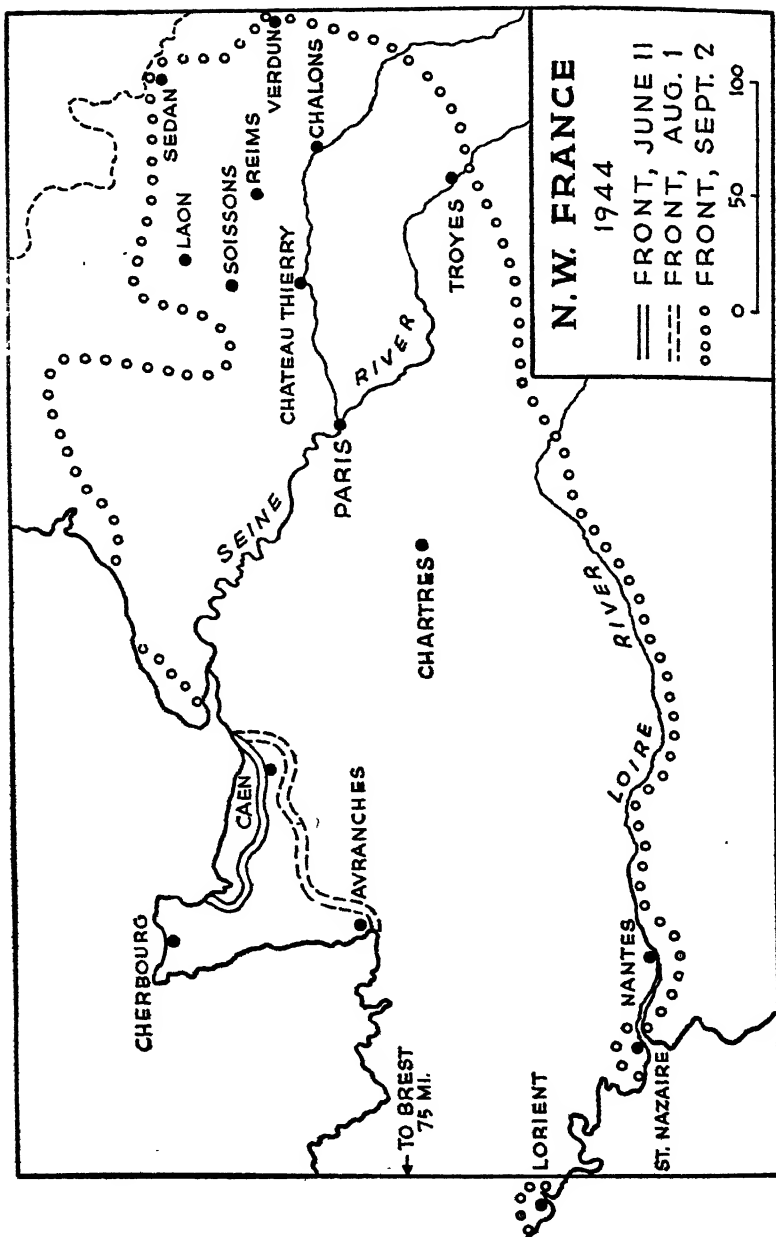


divide nearly every one of the small fields from its neighbor. On the higher ground woods and orchards obstruct the view, while the lowlands are marshy. Here through July the British and Americans slowly advanced. On the eastern or British flank the German resistance, although not strong enough to prevent the liberation of Caen, was able to prevent advance much beyond that town. On the American or western flank the forward movement, although slow, was more sustained. Tactics and even equipment were gradually improved. In particular, a number of tanks, formerly unable to pierce the high-banked sapling hedges, were made capable of doing so by fitting them with bulldozer blades or with pointed steel contrivances like giant plowshares. Shortly after taking up his functions, a new German commander in chief in the west saw fit to announce: "We are not fighting a markedly enthusiastic infantry. The Americans, British and Canadians get into a real fighting mood only when they believe themselves certain of victory through their superior bombs and armament." But if the American dash of 1918 was lacking, superior armament backed by discipline and courage steadily inched forward.

Late in July a group of aristocratic German officers, correctly judging that further resistance was ultimately hopeless and wishing to save whatever could be saved by prompt surrender, tried to assassinate Hitler, but failed by a narrow margin, and either committed suicide or were executed—some of them, it would seem, in a disgusting manner. The German front of Normandy held as firmly as before.

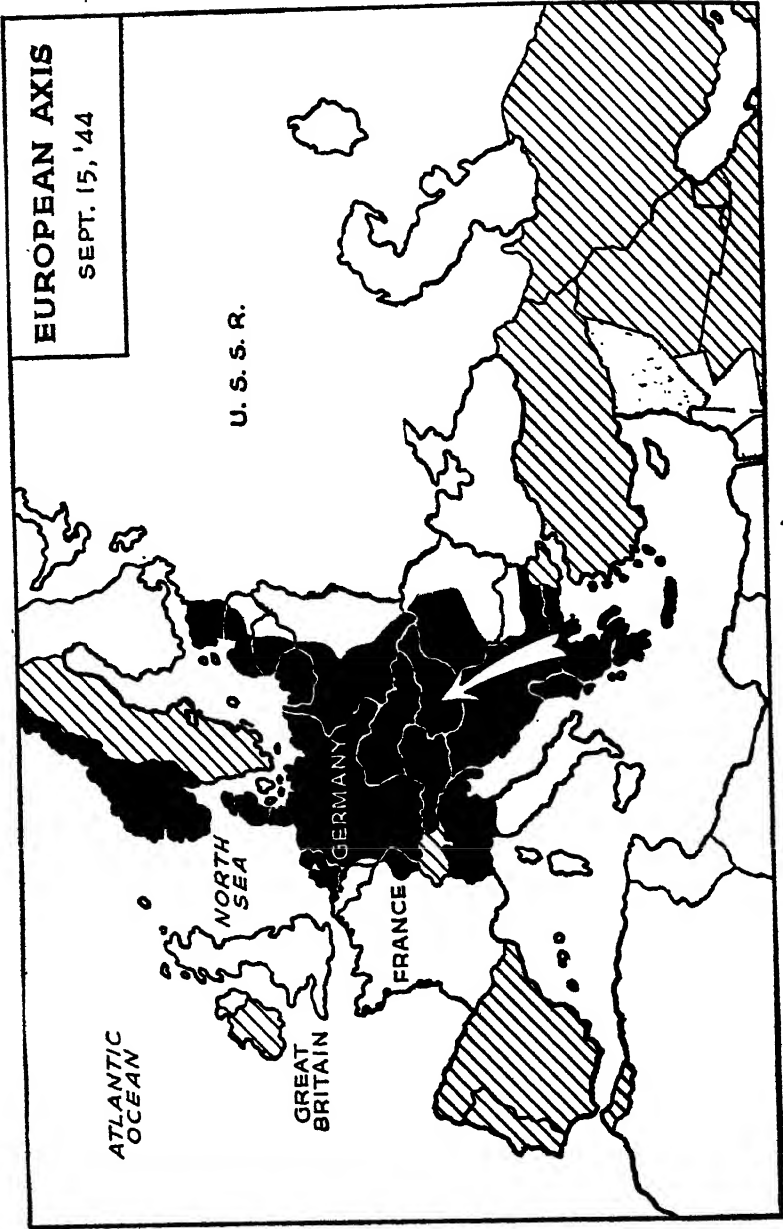
Nonetheless, in the last days of July the mounting American numbers on the extreme right began to advance more rapidly. At long last on July 31, twelve weeks and a day after the first landings on the Channel coast, the turning point of the campaign was reached. Avranches was taken, the German defense locally dissolved, and American armored forces under Patton began to race forward southeast, south, and west along the roads of Brittany.

Seeing themselves threatened with another of the lightning campaigns of the sort which they themselves had originated, the Germans might have played for time by promptly retreating to a defensible position, in this case the line of the considerable river Seine. Instead they counterattacked from east to west with four armored divisions, aiming at Avranches and the region north of that town in



the hope of cutting off the comparatively slender neck of the new and fantastically expanding American salients. The counterattack gained some ground. At least one experienced American officer who was present is of the opinion that had it been launched somewhat farther south it might have reached tidewater. As it was, for some days the fighting swayed to and fro. Nevertheless, the American corridor was held while Patton's armored units, undeterred by the threat to their rear, continued to rush forward, some of them now curling around to the northwest to cut in behind the Germans attacking Avranches.

The failure of the German counterattack determined the immediate future of France. Threatened with entrapment and constantly attacked from the air, the Germans in Normandy, with all their courage and skill, escaped immediate disaster only with heavy loss. At the same time Patton on the American right, constituting the Anglo-American marching wing or fastest moving body, raced forward. The essence of his maneuver was the belief—which events proved to be correct—that the Germans south of the Loire neither would nor could attack northward across that river but would retreat northeastward or stand in prepared defenses of limited area, in order to deny to the English and Americans the use of the French ports on the Bay of Biscay. The enemy, probably underestimating our ability to reinforce and supply over open beaches, may well have exaggerated the admittedly great strategic value of the harbor towns, and may therefore have unduly weakened his field army in order to hold them. Considerable German garrisons were already isolated in Brest, Lorient, and St. Nazaire, far behind the advancing American rush and unable to interfere with American movements for want of transport. French guerrillas, almost unopposed, were taking over the open country of southwestern France. Consequently Patton, whose supply line ran through Cherbourg and Avranches, could afford to neglect almost entirely his right, which rested on the Loire. Air reconnaissance and a few small ground detachments at or near the principal bridges would there suffice. By August 12 his eastward charge had reached Chartres, while the remnant of the Germans on the left of what had been their front in Normandy were being surrounded east of Avranches. About this time it was estimated that the Seventh German Army in Nor-



mandy, once thirty-five divisions, had now been reduced by the equivalent of thirteen, amounting perhaps to 150,000 men.

On August 15 American forces accompanied by French contingents landed on the Mediterranean coast about midway between Toulon and Cannes, too late to have much effect upon the situation in the north. Still, the rapid success of the second invasion at least made the issue doubly sure. In the south there was practically no initial resistance, and thereafter the defenders, although here and there they fought obstinately, were too few to accomplish much. On the same day, August 24, Paris—where fighting had broken out between French irregulars and the German garrison—was liberated, and also Marseilles, as the advanced guards of the southern force reached Grenoble, more than 150 miles north of their landing points. At the same time Patton had crossed the Seine above Paris and was pushing his extreme right toward Troyes. In the last days of August, sweeping over the American battlefields of 1918, Château-Thierry, Fismes, and Soissons, he advanced beyond Châlons, Reims, and Laon, while the advance from the south, having now cleared the lower and middle Rhone of Germans, was approaching Valence.

At the same time Eisenhower's center, which was American with some French units, and his left, which was British with some Canadian divisions, were rapidly advancing northeastward. The resistance of the Germans was spotty. For the most part they continued their retreat, standing stubbornly only in the ports. The Belgian border was crossed on a wide front about September 1. By the middle of that month the American and French units from the Mediterranean had made contact with Patton on Eisenhower's right near Châtillon. Luxemburg and Belgium were cleared in one rush which crossed the Dutch and German borders. In Belgium a notable success was the liberation of the great port of Antwerp intact. Belgian irregulars had been able to keep the hastily retreating enemy from destroying the harbor installations. Access by sea was still cut off by German garrisons on both sides of the Scheldt estuary, but when these should be cleared away the allied supply problem would be greatly eased. As matters stood, difficulties of supply were now making it possible for a German resistance, which at first was comparatively slight, to hold up the advance. In France all that

momentarily remained to the enemy was the easternmost part between Luxemburg and Switzerland.

During the lightning advance across France and Belgium in August and early September the Red Army too had been rapidly moving forward. While the Americans were breaking through in Normandy, the Soviet forces were advancing across eastern Lithuania and moving up to the Vistula on a sixty-mile front southward from Warsaw. In the first week in August after a gain of more than four hundred miles in forty days there was a necessary pause for re-establishment of communications, but before the end of the month the forward movement was resumed northeast of Warsaw and in Rumania, where Jassy was taken and the Dniester was crossed. At this point the Rumanian government renounced the German alliance and ordered its troops to fight on the side of the United Nations. Early in September first the Finns and then the Bulgars followed Rumania's example.

In Italy alone the Germans had lost little ground. Even there, however, they had been pushed back, losing Florence and the line of the upper Arno early in August and Pisa at the mouth of that river at the beginning of September. In the mountains north of the Arno they stood in perhaps the strongest of the many strong positions which they had held in the peninsula, but their resistance there, even though prolonged, could not reverse the current of events elsewhere.

By mid-September Germany's position was practically hopeless. The strangely assorted United Nations had only to continue their combined pressure upon her, as they were unanimously resolved to do, in order to compel her to that unconditional surrender which had long been their announced objective.

We now return to the war against Japan. Here MacArthur's operations and those of the U. S. Pacific fleet, together with the Army units under Admiral Nimitz, are of high technical interest. Not only are they strategically novel; they also resemble in outline the probable opening moves of any future great war in which the United States might be engaged without powerful allies either in Europe or Asia. Because of the vast distances which separate us from the other great powers, such a war would almost certainly

begin with attempts by the two sides to take or hold distant bases of strategic importance. Those bases would be either actually or strategically islands—meaning by a “strategic island” a continental position of no great military resources in itself and unconnected by good land communications with any strong center of armed strength. Without suggesting for a moment what those positions might be, we may note the frequency with which the names of places like the Azores, the eastward “hump” of Brazil, and Dakar have crept into discussions of U. S. grand strategy in the present war. As we have seen, the central and southwest Pacific theaters are chiefly composed of islands, entirely so if Australia be not considered a continent. Moreover, the want of good land communications in most of the larger islands cuts each of these into a number of “strategic islands” militarily connected with each other only by sea and air.

In general the Japanese position in the spring of '44 was what it had been for nearly two years. That position may be likened to a dumpy, irregular pear, of which the large lower lobe is wider than the pear is high—about 4,500 sea miles from east to west, while the height to the tip of the stem is about 3,500. The Kurile Islands stretching northward toward the tip of Kamchatka are the stem. Manchuria and the home islands of Japan are the smaller lobe and the upper part of the core. The western side of this lobe is so deeply indented by the southward extension of Pacific Siberia that Japan proper is within comparatively easy bombing distance of Vladivostok, but while the Soviet and Japan remained neutral as regarded each other no such operation was possible.

The curves connecting the two lobes are Occupied China on the west and three strings of little islands, the Bonins, the Volcano Islands, and the Marianas, on the east. The westernmost part of the large lobe is Burma, the easternmost the Marshall archipelago. The bottom of the pear includes the large base at Rabaul on New Britain, the Japanese holdings along the coast of northern New Guinea, and the Dutch East Indies. The Philippines are the core of this larger lobe.

To take the Philippines would effectively cut off the industries of Japan proper and of Manchuria from the immense natural resources of Malaya and the Dutch East Indies. American sea and air power, when again based upon the Philippines, would reduce the sea com-

munications of the Japanese with their newly conquered southern empire to a furtive trickle. In southeast China Japanese transport would be only the little that the Chinese railroads could carry. Both political and technical conditions in the Philippines were favorable. Considerable popular support would be forthcoming, while the American-made roads would support mechanized transport—a combination not found elsewhere in the Far East. On every count, therefore, the Philippines were indicated as the American objective.

The direction of the approach to Manila remained to be decided. As early as the spring of '43 MacArthur's intention had been first to move westward along the northern coast of New Guinea, then northwestward from the western tip of that island to Mindanao. The essence of his new strategy, as we saw in Chapter VII, was that in a theater where sea and air mobility were everything and movement on the ground almost nothing, many if not most of the outlying Japanese garrisons could be neglected. With air supremacy and without interference from the Japanese fleet, it would be possible to thrust forward as if in a gigantic version of the fabulous seven-league boots, establishing a chain of air bases, distant from each other, to be sure, but just near enough together to nourish adequately the air activity in the forward areas. On the flanks of the operation, just enough Japanese-occupied islands would either be occupied or at least made useless as air bases for the little yellow men by persistent American air bombardment. In this way the advance to the Philippines, as originally planned by MacArthur and his staff, was to have been made with a minimum of naval support and a somewhat larger minimum of ground troops, not much more than twenty divisions. The prime mover of his strategic penetration was to be the long-range, land-based plane, which would first pound into helplessness each point to be seized and then clear the seas far in advance and to the flanks of the next forward move, thus preventing Japanese interference with the transport vessels carrying the troops and supplies necessary for that move.

Meanwhile, Admiral Nimitz and the U. S. Naval High Command had been working out a somewhat different strategy built around the carrier-based plane. The general rule that land-based weapons are stronger than ship-based ones has always admitted local and temporary exceptions. Other things being equal, that rule holds, but other things are not always equal. For instance, there was a mo-

ment in the middle eighteenth century when fleets, by concentrating greatly superior numbers of guns against their land objectives, several times successfully attacked strong stone seacoast fortifications. In the present case neither the air pilots nor the aircraft production of Japan could compare with those of the United States. Further, the little islands of the central Pacific were limited in space and still more so in local resources. Consequently, so the U. S. Pacific fleet had discovered, it was possible for carrier-based planes to smother Japanese air power within supporting distance of an island to be attacked, to such an extent that surface ships could lie close to that island and pound it with their great guns. Under the double cover of both air and sea bombardment the landing troops would then go ashore. Operating in this fashion, the Pacific fleet saw its best chance of reaching the Philippines in an operation based upon Hawaii and moving almost due west upon Guam and the neighboring island of Saipan, which were to be seized as advanced bases from which to support the final bound.

Probably after much discussion, it was decided to put into practice both MacArthur's and Nimitz' ideas. In other words, the Philippine core of the Japanese southern empire was to be simultaneously approached from the southeast via New Guinea and from the east via Guam and Saipan. Thus the eastern part of the larger lobe of the Japanese pear, including Rabaul and the even larger naval base at Truk in the Caroline Islands, would be caught, as it were, between the two claws of a vast pair of pincers.

Early in April, '44, while the Japanese were beginning their ill-fated offensive westward across the Burmese border into India, the new Pacific strategy was foreshadowed by naval bombardment of the Japanese-occupied Palau Islands, combined with intensified air attack upon northwestern New Guinea. Late in that month, as the tide began to turn against the yellow men west of Burma, MacArthur made his first bound forward on the north coast of New Guinea. Successful landings were made at Aitape, about fifty miles west of Japanese-occupied Wewak, and at Hollandia, more than two hundred miles west of Aitape. The Hollandia move was supported by U. S. naval vessels.

Shortly after the middle of May the advance was resumed with another bound of 120 miles westward from Hollandia to the islands of the Wakde region. Within five days from the original land-

ing on Wakde, United Nations planes were already using certain airfields there. Before the end of the month there was still another long stride of 200 miles forward to the island of Biak in the Schouten archipelago. About mid-June, '44, the northern claw of the pincers began to bite into Japanese-occupied territory when an amphibious force under naval command, after steering westward from its Hawaiian base for no less than 3,000 sea miles—a distance about equal to that between English ports and New York—landed on the island of Saipan in the Marianas about two hundred miles north of Guam. After the obstinate resistance typical of Japanese garrisons, Saipan was finally cleared on July 10. On the previous day MacArthur's forces had landed on the island of Numfor west of Biak and not much more than eight hundred miles from Mindanao in the Philippines.

A few days later the Japanese garrison of Wewak on the northern coast of central New Guinea attempted to react by land against MacArthur's envelopment of them by his sea and air steppingstone approach. Boxed in between Americans to the west of them around Aitape and Australians along the Sepik River to the east, they attacked westward. In spite of their persistence they had no success.

Less than a fortnight after the fall of Saipan, ground units of Nimitz' command landed on the former American possession of Guam. Before the final destruction of the last resistance on Guam on August 11, after a campaign of nearly three weeks, MacArthur made another long stride of nearly two hundred miles westward from Numfor to Sansapor on the northern side of the "Pigeon's Head," the oddly shaped peninsula which constitutes the western tip of New Guinea. Japanese local air and sea power were now so beaten down that the movement on Sansapor and upon the neighboring islands of Amsterdam and Middleburg was not detected by hostile reconnaissance until the actual landings. Consequently those landings were at first almost unopposed. The Japanese base on the Pigeon's Head at Manokwari, now isolated like that at Wewak, was hastily evacuated, its defenders fleeing south and west through the jungle.

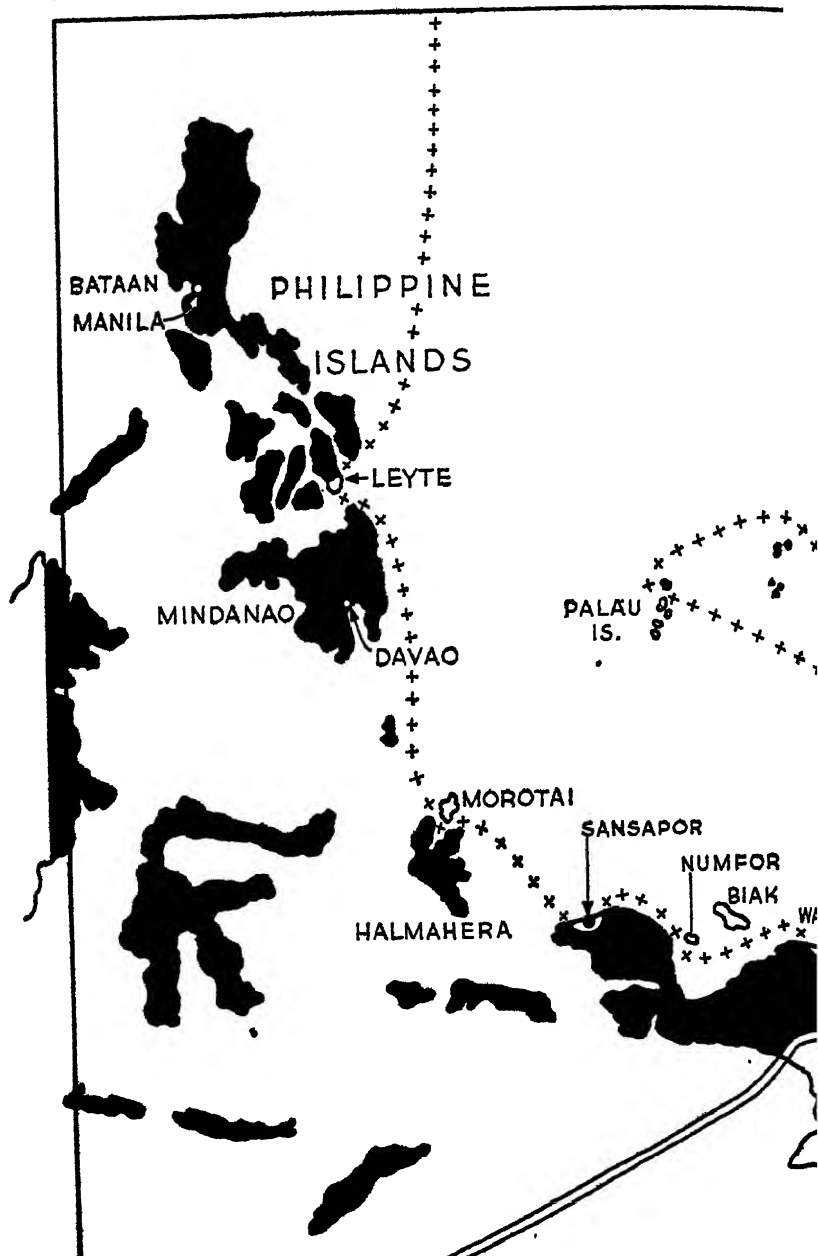
As they did so, word came that Myitkyina, the Japanese strong point in northern Burma, had fallen after a siege of more than two months by the Chinese and Americans advancing from Ledo, and that Tengyueh, seventy-five air miles to the southeast, had been

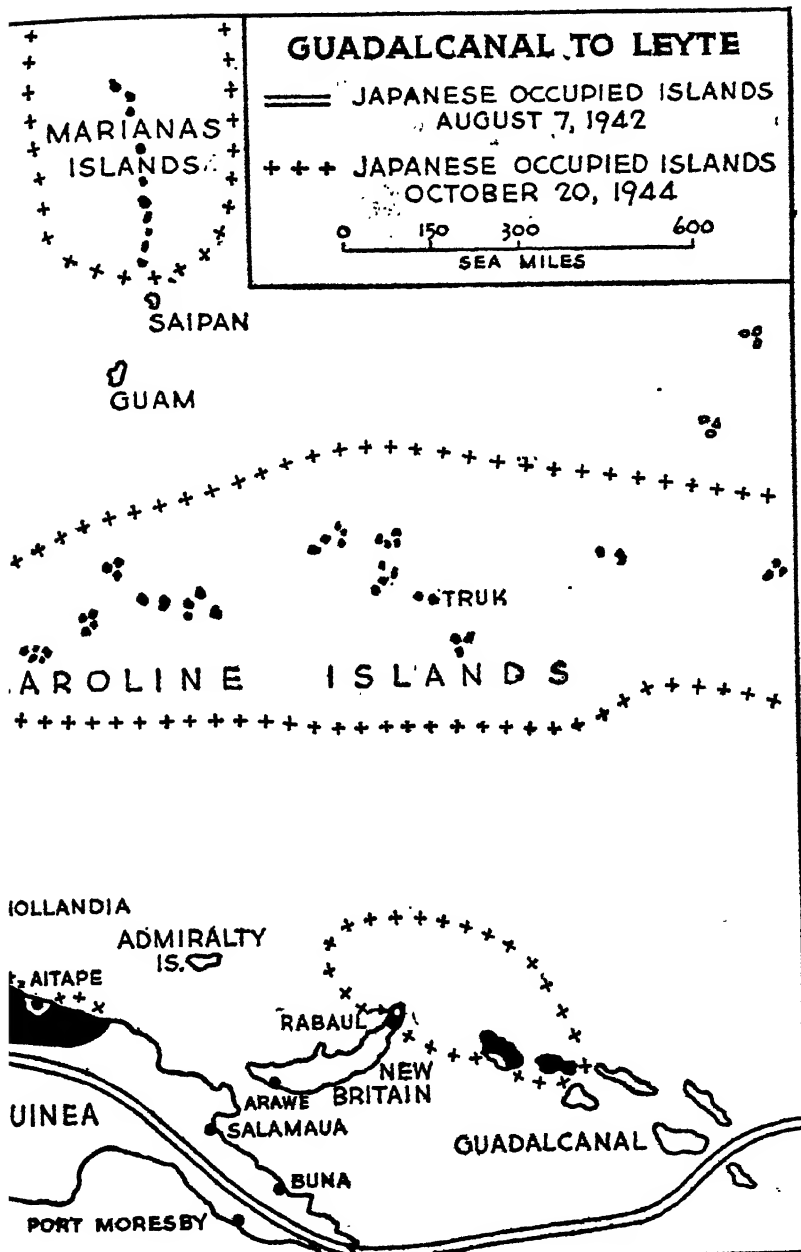
entered by the Chinese troops advancing from the upper Yangtze.

The occupation of Sansapor completed the string of air bases along the coast of New Guinea. Shortly afterward, MacArthur's planes began to pound the important Japanese air installations on the island of Halmahera, some 750 miles farther to the west, so effectively that before the end of August the hostile planes were reported to be withdrawing from that island. The weakening of this important bastion of the defense menaced the entire Nipponese southern empire by threatening a forthcoming move into the Philippines. In the first ten days of September this move was foreshadowed by air bombardment of the port of Davao in Mindanao and by further air and naval bombardments of the Palau archipelago some five hundred air miles north of the Pigeon's Head. Notwithstanding the fatigue of a long flight to fighter pilots, MacArthur's fighter planes covered astonishing distances in order to cover the bombers in their attack on Davao. In the Palaus there was no Japanese air opposition, only light antiaircraft fire. At the same time Iwo Jima in the Volcano archipelago and Chichi Jima in the Bonin Islands were also bombed from the air. The question began to be asked: Where is the Japanese Air Force? Is it being deliberately held back? The U. S. Navy, with its necessarily vulnerable carriers, was naturally concerned.

In mid-September, as Tengyueh in Burma finally fell after more than three months' siege and contact was made near that place between the Chinese-American force from India and the Chinese from Chungking, the air and surface pounding of the Palaus was continued. Certain of the central Philippine islands were also hit from the air, while MacArthur's command made still another surprise landing, this time on the island of Morotai some three hundred miles northwest of Sansapor and only about the same distance from Mindanao. Simultaneously, as a climax to the prolonged bombardment of the Palaus, American ground forces landed there, to meet the usual fierce Japanese resistance, which—again as usual—was steadily beaten down.

Through late September and early October the bombing pattern was thickened over the central Philippines and at the same time extended northward to include Manila Bay and especially Formosa. Carrier planes even struck in the Ryukyu archipelago north of Formosa. On October 20 MacArthur's and Nimitz' combined com-





mand made the largest amphibious landing yet seen in the Pacific, going ashore on the east coast of the island of Leyte, still 450 miles from Manila but 600 from Morotai and considerably more than 2,000 from MacArthur's first advanced base at Port Moresby.

It has been said that the armada which invaded Leyte had originally put to sea with the intention of landing in Mindanao, and that the entire plan was changed at the last minute when the latter island was found to have just received Japanese reinforcements, while Leyte was reported as lightly garrisoned. The student of military planning will think it probable that alternative plans had been prepared. In any case, the possibility of so sudden a change of direction once more illustrates the extreme flexibility of amphibious war, its power—once sea and air command have been gained—to strike at this or that widely separated objective.

To anticipate events, the invasion of the Philippines at long last brought the Japanese fleet to battle, with the result that much if not most of it was destroyed. For the first time in the Pacific, battleships exchanged salvos. On land the Japanese resistance was steadily crushed by superior American weight of metal. American strength in the air, in mechanized forces, and in artillery, combined with sea command, had by the time of Germany's defeat almost wholly cleared the archipelago of the Mikado's subjects. Again and again this formidable combination has permitted MacArthur's ground forces to establish themselves with trifling loss in positions where the little yellow men were weak—"hitting 'em where they ain't" in the familiar baseball phrase—but where American presence in arms unsettled neighboring Nipponese holdings far and wide.

In concluding this sketch of operations in the Pacific to October, '44, we return for a moment to the small losses suffered by MacArthur's command in so many of its victories: a point characteristic of his strategy when fully developed and of the utmost importance to the fundamental theory of war. Again and again, and with a just pride, the communiqués from the southwest Pacific record the results achieved with an astonishing economy of blood. That economy of MacArthur's, and still more the rightful satisfaction with which it has been announced, are superlative examples of a total change since 1914 in what may be called the "climate" of war. Neither the emotional nor the intellectual approach to the ugly business of mass massacre are what they were thirty years ago.

Looking backward over this summary narrative of the decisions of 1939-44, we have seen how the original German decision to make war was rooted in the failure of the attempted peace settlement of 1919. What may at first have been considered in Berlin as hardly more than a punitive expedition against Poland became a world conflict through the fulfillment by England and France of their pledged word to the Poles. That pledge had been boldly, perhaps rashly given. Certainly Warsaw had been heroically rash in accepting it. Obviously the English and French had come to feel that National Socialist Germany threatened their whole political and economic systems. If the left-wing German dictatorship armed with the formidable military tradition of Prussia should grow stronger, their world would be overturned. When the German lightning victories had culminated in the fall of France, something of the same concern began to be felt in the United States. The stubborn resistance of England, favored by the unexpected strength of her defense in the air, permitted America's gradual approach to war to develop, foreshadowing an extension of the conflict to the west. In the Pacific, too, American policy toward Japan was hardening.

The first turning point of the war was Germany's attack upon the Soviet Union, her partner in the rape of Poland, followed by the German failure to take Moscow. After Japan had put much of the American fleet out of action at Pearl Harbor, thus bringing herself and the United States into the global war, although she and the Soviet remained neutral toward each other, the Japanese overran much of the Far East but were held on the border of India and somewhat to the north of Australia. The summer of '42 saw perhaps the most mysterious episode of the struggle: the German attempt to put the Soviet out of the war "on the cheap," as it were, without another all-out attempt to gain a decision on the Russian front before United States power began to be felt. After halting Japan, United States and England persevered in their joint decision to consider Germany their principal enemy. In November, '42, they moved into French North Africa to clear the Mediterranean, shortly before the German armies in Russia suffered a considerable local disaster at Stalingrad. Subsequent Anglo-American disappointments on the Italian mainland did not cancel the good effect of the North African move. In the early summer of '44 a decisive attack against the Germans in France was made across the Channel,

and with the autumn—after the German border had been crossed in the west and closely approached on the east—an amphibious invasion of the Philippines was threatening to cut Japan's communications with her southern conquest.

In the foregoing chapters the operations at sea and on the Soviet-German front have indeed figured on a scale disproportionately small as compared with their strategic importance. In the case of the Soviets, their extreme secrecy has heavily veiled everything except the mere outline of the great events on what was after June, '41, the principal land front of the war. At sea the continuous struggle, on the success of which the survival of Britain, the supply of the Soviet, and the maintenance of the Anglo-American land offensives have depended, has been kept more secret than the land campaigns, while it has produced few important and no immediately decisive episodes. The persistence of the naval effort is vividly shown by the announcement made in mid-April, '45, that American submarines in the Pacific had sunk an average of an enemy ship for every day since Pearl Harbor.

PART THREE

LESSONS

IX. THE TRIUMPH OF THE GUN

SO deeply has war affected our society that in considering its lessons we are in danger of ranging far afield. In order to hold to the main thread of events we shall do well to begin by estimating the major technical military developments. In a sense this is indeed putting the cart before the horse, since wars are made not by machines but by men. Logically, therefore, the higher study of war should begin by considering the ideas which during certain historical periods have reconciled men to each other or set them at variance. Nevertheless, in practice the technical aspect of operations influences their social aspect because military technique is an index of the strain which is being put upon society. Also, the proportion of indisputable facts is greater in the field of technique than in that of ideas. Accordingly, we can best find solid ground of agreement as to the lessons of the war which began in September, 1939, by considering the relatively simple matter of its technique.

The technique of any task is a matter of tools. A giant without an ax could not fell a moderate-sized tree—except perhaps by the slow process of burning it down—while a man of average strength, ax in hand, fells the same tree easily. So military technique is primarily dependent upon weapons and secondarily upon transport. In practice both are products of the knowledge of physical science and the available wealth of the society which is waging the war.

Technically speaking, the chief lesson of the present war is the triumph of the gun over individual weapons, a triumph made possible

by the internal combustion engine which we have already called the iron horse. By "gun" we mean any team weapon, i.e., one which cannot be carried and fought by a single man on foot or mounted upon a horse. Such weapons, for the first time in recorded history, now dominate the technique of land warfare. In view of the plane, we may say more precisely that team weapons now dominate campaigns fought for the direct control of land areas. In naval warfare, as we shall see in a moment, the same general principle has long been true.

The first thing to be noted about the triumph of the gun is the suddenness of the transformation involved. In 1914, only twenty-five years before the beginning of World War II, the strength of armies was universally reckoned in terms of the number of their infantry—so many rifles or even so many bayonets. It was of course recognized that any force operating independently or even any considerable unit of a larger force must be "balanced" by including a certain proportion of artillery and cavalry, and that an unbalanced force was gravely handicapped—the amount of the handicap depending upon the circumstances of the particular campaign. Nevertheless, infantry was everywhere agreed to be the principal arm, the "queen of battles," and the other arms were considered its auxiliaries.

The distinction between infantry and cavalry had come down from almost immemorial time. Artillery in the widest sense of team weapons was almost equally old. Even in the narrower sense of heavy, missile-throwing contrivances of longer range and greater power than individual arms, catapult artillery had been known for thousands of years. Moreover, the artillery and infantry weapons of the four centuries preceding 1914 were to a considerable extent stabilized types. Before 1500 the field gun with its carriage was already the recognizable ancestor of that of today with trunnions, axle, wheels, and trail complete. Similarly the musket of about 1500 with its barrel, its trigger, and its stock set at an angle to the barrel was a recognizable ancestor of the infantry rifles and automatic rifles of our own time. Even the explosive projectile or bomb is found before the middle of the sixteenth century, although the difficulty of setting fire to its fuse long restricted its use to short-barreled mortars in which the fuse could easily be lit from the muzzle just before the piece was fired. The bayonet has hardly altered

during its two hundred years of use, while the rifle with bayonet fixed is a sort of spear—thus harking back to one of the primitive fighting tools.

During 1914-18 both the "balance of the arms" and the very appearance of most of them changed. Cannon and machine gun replaced the infantry rifle as the dominant weapons. If the field gun was still a lineal descendant of that of 1500 A.D., the machine gun with its tripod was obviously a new thing. Presently still more novel military instruments came into being, planes and tanks, both of them fighting vehicles or mobile gun mounts resembling nothing ever known before and vulnerable only to gunfire.

Today true infantry, fighting on foot with weapons each of which can be carried and used by a single man, has almost disappeared. The majority of ground fighters are still called "infantry," but for many if not most of them the word has become a mere label, since their weapons are really light artillery—machine guns firing from fixed mounts, trench mortars, antitank guns, and bazookas. The only slender thread of rational definition which faintly connects the foregoing with true infantry is that the light artillery pieces amusingly called "infantry heavy weapons"—"I'll say they're heavy!" says the man who has to use them—are shorter ranged than the pieces served by those whose title of artilleryman has never been questioned. Thus the so-called infantrymen serving heavy weapons, including those of the "cannon company," are still infighters compared with those who serve field guns and anti-aircraft pieces. "Cavalry" in the traditional sense of men fighting on horseback has of course disappeared from serious warfare. In short, the gun has triumphed.

In normal terrain true infantry, in the sense of men armed with one-man weapons, is no longer capable of independent action. Indeed, in units larger than the company true infantry hardly exists anywhere in the civilized world. Guns of some sort, either machine guns, light mortars, or antitank guns, are an integral part of every "infantry" regiment and of almost every "infantry" battalion. A Berlin dispatch in the *New York Times* of May 5, 1941, says: "There are German regiments"—the context shows that the writer means infantry regiments—"which do not contain a single rifle-bearing infantryman . . . and virtually every soldier knows how to wield a specialized weapon. . . . With such aids . . . it has been

possible for half a dozen of these specialized infantrymen to break through in a situation where, in the World War, it would have required two regiments, it was claimed. The theory underlying the German war equipment may be summed up in the principle: "Spare men but do not stint on material. . . ." Even in the German parachute troops, in which every extra ounce of weight counts, many units include light artillery. Without for a moment considering German technical practice as divinely revealed, infallible truth, it is at least significant.

There is nothing mysterious about this fundamental change in military technique. The nineteenth-century French theorist Ardant du Picq truly says: "Men fight not for the sake of fighting but for victory. They do everything they can to avoid the first while achieving the second." In other words, the desire to live, however suspended by devotion to a cause or more often by disciplined habit, is always present. Among civilized men the wish to put one's enemy out of action without harm to one's self, which Fuller calls "the constant tactical factor," expresses itself in a constant search for new military instruments and more effective ways of using familiar ones. Given a sufficient command over physical nature to manufacture artillery plus sufficient wealth to multiply its pieces and their munitionment, the constant tactical factor has always worked in favor of the artillery arm. Its range and power do the trick. If you can disable an opponent while remaining out of range of his weapons, or if you can penetrate his armor or blow in his trench while yourself remaining invulnerable, you will win unless you play the fool.

On the other hand, there will always be a minimum, perhaps a considerable minimum, of use for true infantry weapons. We should also examine the chances of there being an effective reaction in their favor. After all, the ultraconservative soldier always has two truths of importance on his side. A new military instrument when first proved effective has a moral effect which is large out of all proportion to its actual, physical effect. It frightens people by its mere novelty, but with time the novelty wears off. Also, experience may show some means of countering the new instrument or at least of limiting its effectiveness.

Before seeking to apply the foregoing principles to the recent and startling transformation of tactics by means of the plane-tank team,

we should note the rarity of such changes throughout history and should glance at a few of those known to have occurred. Only two others of which we have full record—the beginning of the cavalry era in the fourth century A.D. and the Swiss invention of an attacking infantry in the fourteenth century—can compare with that of our own time in universality and suddenness. Even the use of gunpowder took effect more slowly, and until yesterday made no change in the principal arm, infantry.

Most tactical changes result from some new matériel. Exceptionally they may be due only to a new formation; we may instance the French Revolutionary-Napoleonic skirmishers who had exactly the same sort of muskets as had been carried in the rigid ranks of Frederick the Great. Usually, however, such changes involve some new means of increasing either weapon power, protection, mobility, moral effect, or a combination of two or more of these.

This has been true since the beginning of history. About 2000 B.C. the use of horses, until then unknown to the high Egyptian civilization, enabled a body of Asiatic nomads called the Hyksos to conquer Egypt. The tremendous moral effect of the sudden appearance of these swift and powerful beasts upon Near Eastern battlefields is still preserved in the thirty-ninth chapter of Job: "Hast thou given the horse strength? hast thou clothed his neck with thunder? . . . He saith among the trumpets, Ha, ha; . . . the thunder of the captains, and the shouting."

Similarly the mere phrase of Herodotus, "brazen men," reflects the terror inspired in the half-naked warriors of the Near Eastern world by the coming of the Greeks, invulnerable in their metal helmets, cuirasses, shields, and shinguards. The consistent Greek victories over Orientals followed.

A glance at the ups and downs of infantry versus cavalry and of unarmored versus armored men will show that none of them was as fundamental technically as the twentieth-century triumph of the gun. In each previous change, that which had previously been the decisive arm had weakened or had become unsuited to existing conditions.

By 300 A.D. infantry had dominated Greco-Roman campaigns for more than a thousand years. As the terror originally inspired by the horse had worn off, it had been discovered that against a steady line cavalry charges must fail, irrespective of armament. Such charges

were not suicidal as they are today; they could immobilize infantry by compelling an all-around defense, and at close quarters their moral effect was terrific. The footman had a sensation like that of someone standing on a railroad track with a locomotive rushing at him. But if that terrible impression could be countered by discipline so that those charged would stand firm, then the horses would invariably halt or swerve before contact. Accordingly, in the ancient world, although there had been moments when cavalry had seemed to shake the supremacy of the armored footman, those moments had soon ended.

The first signs of change appeared early in the Christian Era when the chief task of the armies of the Roman Empire ceased to be fighting against civilized opponents and became that of chasing mere bands of raiders. For such work, maximum fighting power is less important than mobility—our own army in dealing with the plains Indians and the British when running down the Boer commandos toward the end of the South African War proved the same point. Thus infantry became less important compared with cavalry. A second cause was the cheapness of hiring barbarians as compared with civilized men. From its greatest days Rome had recruited its cavalry from noncitizen sources, and the internal decline of the ancient world made cheap soldiers peculiarly desirable. A third cause, also connected with the internal decline, was the decline in discipline. As wealth decreased, it became more difficult for the emperors to pay their professional soldiers. In the fourth century, the legions could no longer be counted upon to withstand the moral effect of a mounted charge unless bunched closely together and covered by a hedge of long pikes. The close formations and the necessary unwieldiness of the pikes lessened mobility and maneuvering power, until at last armored cavalry replaced infantry as the attacking arm. The battle of Adrianople in 378 A.D., which was lost by the inability of the legions to change front quickly enough to resist an unexpected charge of armored horsemen, is a convenient date.

Possibly, but not certainly, the fourth-century triumph of cavalry was accompanied and in part caused by the introduction of stirrups into the Roman world, although these may not have come into use until somewhat later. Certainly the victory was won by combining armor with mobility, since horsemen and the heads and chests of their mounts can be more heavily armored than footmen.

For about a thousand years armored cavalry remained the principal arm. During that time, cavalry could seldom if ever break a solid defensive formation, but on the other hand dismounted men could not attack effectively except for short counterattacks. Knights were habitually dismounted when it was desired to hold a position and no solid infantry was available, but could not then march far because of their armor. True infantry were not sufficiently drilled and disciplined to be able to maneuver rapidly and with precision. Accordingly, fights between mounted men and an almost immobile defensive mass were usually won by the side which could develop superior arrow fire. On the other hand, archers, even the English longbowmen, could easily be ridden down if not covered either by dismounted men in armor or by field fortification in the form of stakes, which took some time to plant firmly.

Toward the end of the Middle Ages, however, armored cavalries, accustomed to compete chiefly with each other, began to overweight themselves and their horses with the new invention of plate armor, which replaced the lighter and more flexible but less resistant chain mail. Consequently they lost maneuvering power as the legions had done before them. By the fifteenth century they could no longer turn at a canter.

Meanwhile, a new attacking infantry was developed by the Swiss. These mountaineers, too poor to afford armor, were by that very fact light and extremely mobile. The inherent clumsiness of their powerful two-handed weapons—long pikes and heavy halberds—they supplemented by an extraordinary perfection of drill. Apparently they were always drilling, just as they are always practicing rifle shooting today. Their festivals and even their weddings were celebrated by exhibition drills. Their precise and rapidly shifted formations made them the masters of the overweighted cavalry of their time. When the latter dismounted to fight, the result was the same. From the battle of Morgarten in 1315 to that of Marignano two hundred years later, the Swiss were never beaten, and their infantry were still in demand as mercenaries until late in the sixteenth century.

Interestingly enough, the Swiss victories owed nothing to gunpowder, which was already in use. The fire power of the mountaineers was always negligible. Accordingly we may be morally certain that even if gunpowder had never been invented, still the reappear-

ance of an attacking infantry would have ended the cavalry era, restoring the supremacy of the foot soldier, which had characterized the high civilization of the ancient world.

Meanwhile in the form of catapults the third arm, artillery, had dominated ancient and medieval sieges. In the third century A.D. the Emperor Aurelian's city wall of Rome seems to have been designed to be defended chiefly by ballistae, i.e., catapults like large crossbows mounted upon pivots set up on the flat roofs of the towers and shooting gigantic arrows. Indeed, on various occasions the ancients had also begun to use catapults as field artillery. Six hundred years before Aurelian such engines had enabled Alexander to force a crossing of the Jaxartes River against the Scythians. The barbarians, astonished at being struck by missiles from so great a distance, retired to a more respectful position back from the banks. Catapult field artillery was also used by a king of Sparta at the battle of Mantinea in 207 B.C., and according to Vegetius by the Roman legions of the fourth century A.D. In the depths of the Dark Ages in 886 A.D., the power of the ballistae was shown by an incident of the unsuccessful Viking siege of Paris. A lucky shaft from a ballista went through several Danes, who fell dead pierced by the same missile. A warlike monk, thinking of fowls broached on a spit for roasting, cried to the friends of the victims to "pick them up and take them to the kitchen."

In the development of firearms, cannon were a little ahead of the infantry musket in affecting the fortune of battles. As one would expect, the first effective artillery actions other than sieges were positional engagements involving the attack and defense of field works. In the last fights of the Hundred Years' War, the English defeats at Formigny in 1540 and at Castillon in 1543, French guns made the old English archery tactics impossible. Field pieces played a considerable part in a battle in the open at Marignano in 1515, while the first action in which musketry was conspicuous was that of Pavia in 1525. There can be no doubt whatever as to which sort of weapon had the greater moral effect. The masters of sixteenth-century literature agree in their testimony; the Italian verse of Ariosto, the French prose of Rabelais, and the English verse of Shakespeare all eloquently describe the terrifying effect of gunfire.

Before the end of the sixteenth century the gun had triumphed as the decisive weapon in naval warfare. Earlier sea fights had been

won either by ramming or by grappling with the enemy and boarding him with infantry weapons. The critical campaign here is the defeat of the Spanish Armada in 1588. Had the Spaniards been able to close with the English, their superiority in infantry—both in quantity and quality the Spanish foot were then admittedly the finest in Christendom—would have given them an easy victory. The greater mobility of the English, i.e., the faster sailing and greater handiness of their ships, permitted the islanders to choose their distance, and their superior gunfire inflicted heavy losses upon their opponents until the latter were finally scattered by bad weather.

Nevertheless, on land the field gun long failed to play a decisive role in mobile warfare. Its early sixteenth-century effectiveness had been proved against infantry formed in dense masses through which solid shot could plow great lanes. Such masses, however, were mere survivals of the cavalry era. As infantry discipline and maneuvering power improved, shallower formations were found able to resist mounted charges, and these shallower formations were far less vulnerable to artillery. Another cause which retarded the influence of artillery was the impoverishment of Europe by the horrible Religious Wars of the sixteenth and early seventeenth centuries. Cannon, like any other large or complex weapon, are expensive, and if want of money diminishes their numbers in comparison with those of cheaper arms like cavalry and infantry, then obviously the importance of gunnery is correspondingly lessened. At the same time, the original and overwhelming sixteenth-century moral effect of heavy ordnance seems to have declined.

The reason for the early dominance of the naval gun compared with the long subordination of the field gun is simply that the sailing ship was a fighting vehicle. Its mobility enabled it to bring its guns into action. Moreover, comparatively few well-aimed shots might disable a hostile ship. In land fighting, on the contrary, the gun had no tactical mobility. It was heavy, and when in movement within the range of the enemy the teams which drew it were an admirable target. Once infantry formations shallower than those of the sixteenth and early seventeenth centuries had been adopted, it was long before the increasing wealth of modern Europe began to permit the production of guns and ammunition in quantities sufficient to affect any considerable part of a hostile army.

Not until after the middle of the eighteenth century did the gunners of the French Army begin to increase the relative importance of their weapon. The improvements made by Gribeauval in the matériel of artillery and by Guibert and the Du Teils in its tactical theory, that is, the idea of deciding a general action by concentrating fire on a part of the hostile front, are familiar to military students. Equally familiar is the great part played by field guns under Napoleon at Friedland and in other battles where his concentrated batteries blew a great hole in the hostile line. At Wagram a mass of no less than a hundred guns prepared the final French charge. Under the prerevolutionary shelter of the strict eighteenth-century limitation of war, the wealth of Europe had increased sufficiently to permit a comparatively lavish use of costly weapons.

What is less familiar is the extent to which Napoleon went in generalizing upon the new importance of the gun. He wrote: "He who can rapidly bring on to the field a mass of artillery at the crisis of the battle and at a decisive point is certain to carry it. . . . The better the infantry the more one must husband it and support it with good batteries." And again: "In siege warfare, as in the open field, it is the gun which plays the chief part; it has effected a complete revolution . . . it is with artillery that war is made." (*Correspondance*, Vol. XXXI, p. 328; Vol. XXX, p. 447.)

It would be difficult to put the matter more strongly, and yet the Emperor's field guns were only muzzle-loading smooth-bores, and their one quasi-explosive projectile was case shot, consisting of a number of bullets in a cylindrical box which broke and scattered them upon impact.

For some decades after Waterloo European impoverishment again restricted artillery. During the American Civil War, paradoxically enough, the advance of physical science momentarily advantaged the infantry musket over cannon because the former was generally fitted with rifling sooner than the latter and therefore had an equal if not greater effective range.

This anomaly, however, was soon corrected; the rifled gun recovered a normal superiority of range relative to the infantry rifle, while both became breech loaders. Before 1900 there was a further increase in density of infantry fire due to the magazine rifle, but the relative importance of the gun was maintained by great improvements in artillery projectiles and by a greater rapidity of artillery fire

due to the introduction of automatic recoil mechanism. Meanwhile steady increase in material wealth and governmental authority over that wealth made possible an unprecedented and constantly increasing multiplication of expensive weapons and munitionment.

In the Russo-Japanese War of 1904-05 military observers noted two tendencies. First the quick-firing field gun showed signs of replacing infantry as the decisive arm. A British attaché, Colonel W. H. H. Waters, wrote: ". . . by the light of my new experience I can see no reason why artillery should not often be the decisive factor and it certainly was at Telissu." The British Major J. M. Home wrote after returning from duty as an observer with the Japanese:

The great impression made on me by all I saw is that artillery is now the decisive arm and that all other arms are auxiliary to it. The importance of artillery cannot be too strongly insisted upon, for, other things being equal, the side which has the best artillery will always win. . . .

So strongly am I convinced of the immense importance of artillery that it seems almost a question for deliberate consideration whether artillery should not be largely increased even at the expense of the other arms. Infantry can, if necessary, be trained in about three months, whereas artillery cannot be so improvised. . . .

With the extraordinary development of artillery it begins to appear as though infantry fire action cannot usefully be employed at ranges beyond 600 yards, as beyond that distance the hostile guns ought to be able to prevent infantry from using their rifles. [*The Russo-Japanese War, Reports from British Officers*, Vol. III, pp. 117, 209-210.]

Another interesting point which seems today to have foreshadowed the future was that before 1900 field guns were beginning to be fitted with shields. Armor was returning.

The second tendency observed in the Russo-Japanese campaign was that automatic machine-gun fire was beginning to replace musketry as the chief weapon in infighting. Once in position, the machine gun and the single man needed to fire it offered a target not much larger than a single rifleman. Accordingly it had the great advantage always possessed by infantry relative to artillery, i.e., that a single man can conceal himself with comparative ease and can avail himself of a small shelter, much as an insect pursued

by a man with a fly swatter can find safety in a tiny crack in the floor. At the same time, the machine gun can deliver a volume of fire enormously greater than that of many infantrymen. The possibilities of machine-gun fire were realized chiefly by the Germans.

As we have seen, however, the machine gun is not a true infantry weapon because it cannot be carried by a single man. Even the gun alone without its mount and without ammunition is an almost prohibitive load—as anyone who has tried to carry one vividly remembers. Accordingly, when moved by the muscle power of men or animals it cannot combine the mobility, the power to cross obstacles, and the instant readiness for action characteristic of one-man weapons. It might therefore have been expected to strengthen the defensive more than the offensive, as indeed it did.

In April, 1914, a talented British officer, then an infantryman, today Major General J. F. C. Fuller, retired, full of the lessons of the Manchurian campaigns of ten years before, visited an artillery practice camp and reported in writing as follows:

The leading lesson which I learnt whilst at this camp only accentuated what reading had already led me to suppose, namely, that artillery is to-day the superior arm, and that, consequently, battles will become more static, i.e. entrenched. . . . its power is so great that the infantry assault will be chiefly rendered possible by the demoralization of the enemy by means of artillery fire. This logically leads to penetration in place of envelopment as the grand tactical principle of the attack, because freedom of manoeuvre will be limited by wire and field works: to an enormous expenditure of ammunition at the decisive point, and to consideration whether a special motor ammunition column should not be formed to supply alone the guns taking part in the decisive artillery attack.

In the same month, April, 1914, Fuller also wrote a memoir on "The Tactics of Penetration" in which he said:

To-day we have, besides the magazine rifle, the characteristics of which are understood, two, comparatively speaking, new weapons: the quick-firing field gun and the machine-gun. Realizing this, we can predict with absolute certainty that the General who makes the truest use of these weapons, that is so deploys his men that their

fullest power is attained, will win unless he is hopelessly outnumbered.

. . . of all the changes introduced since the Russo-Japanese War, the general adoption of quick-firing artillery by civilized armies is . . . the greatest. This gun, if correctly employed, will . . . revolutionize the present theory of war by substituting as the leading . . . tactical principle penetration for . . . envelopment.

To-day, on account of the rapidity of fire of the modern field gun, there will be no necessity either to hold back guns in reserve, or to withdraw them from their position, for all that will be necessary will be to mass ammunition opposite a definite point . . . so that the guns commanding this point . . . may pour a continuous and terrific deluge of shells on this point, and so enable the decisive attack to proceed against it. Admitting that this is feasible, then the problem resolves itself into one of supplying these breaching batteries with sufficient ammunition; this . . . should not be . . . difficult . . . now that motor transport is in general use. [*The Reformation of War*, Fuller, Hutchinson & Co., London, 1923.]

He might have added that the enormous size of twentieth-century armies was also making successful envelopment more difficult, and therefore increasing the relative importance of attempts to penetrate a hostile front rather than to outflank it. Indeed, he might have gone even further by noting that the comparatively low training of the European masses of conscript infantry was working in the same direction; compared with penetration, envelopment on a large scale is a complex maneuver difficult to time. This point had already been seen in 1913 by R. M. Johnston in his *Bull Run*, in which he suggested that because of the rawness of McDowell's infantry the latter might well have done better by using his powerful artillery to penetrate the Confederate front rather than by trying to turn it, as he unsuccessfully did.

Although as far as Fuller's superiors were concerned, his conclusions fell upon deaf ears, they were soon borne out by the events of 1914-16. In the trench warfare which soon developed on the western front, the importance of the gun increased by leaps and bounds. After losing 300,000 men in '14 and 350,000 in '15, the French command in its "Instruction" of January 8, 1916, laid it down that "infantry has no power of taking obstacles. . . . It is incapable of offense without artillery. . . . Artillery crushes, infantry sweeps

over. . . . Battle is not waged with men against matériel . . . order takes precedence over rapidity."

In general on both the eastern and western fronts the importance of the infantry masses decreased relative to that of the masses of artillery. In the east the superior numbers of the German guns permitted their possessors to roll back and at long last to break the spirit of the numerically superior millions of courageous Russian foot. Not infantry manpower but artillery weapon power decided the issue. In '17 and '18 first the Germans, then their opponents began to supplement the offensive action of their infantry by accompanying each unit with field pieces more or less permanently attached. Each German infantry regiment which attacked in March, 1918, had a battery of light artillery and six light horse-drawn trench mortars attached. Ludendorff's "Note" of May 15, 1918, went further, prescribing the organization of "mixed battalions" with a section of artillery assigned to each, and continued: "The idea that success is won by masses of troops must be absolutely destroyed. Such methods result only in useless losses. Not numbers but fire power is decisive." The same idea was put forward in his "Note" of June 9 which, while emphasizing the need for boldness on the part of the infantry, went on to say: "The most vigorous resistance is broken much more readily by reinforcing the artillery than by reinforcing the infantry . . . greater infantry density only increases losses." His general order of August 1 again insisted that "the infantry must never be deprived of powerful artillery support."

With the enemies of the Germans copying the latter's practice of intermingling guns with foot in semipermanent "teams," when the Armistice was signed it was already possible to ask whether infantry was still the decisive arm even in mobile warfare. As early as his noteworthy *First Reflections on the Campaign of 1918*, published in 1920, R. M. Johnston was writing: ". . . young officers of infantry and artillery should serve at least twelve months with the alternate arm." And again: "Mobility is the test; and we must endeavor to produce the most powerful gun that can get quickly to any part of the front."

While it was still possible to debate whether or not the infantry era was over and the gun had definitely triumphed, all technical military discussion was overshadowed by one colossal and indisputable fact: In prolonged mass warfare on the modern scale, waged

with the weapons and methods of 1914—which had, on the whole, persisted throughout the struggle—there can be no winners. The resulting mass massacres leave only various degrees of losers. Materially speaking, no fruits of victory could possibly compensate for the efforts and sacrifices demanded. Nor was any widespread spiritual benefit observed. Most of the planet was bankrupt and many millions of families were in mourning. In not much more than four years the world had exhausted itself far more than in the twenty-three years of the wars of the French Revolution and Napoleon.

Governments, soldiers, and people were unanimous that this must not happen again. For their part, thinking soldiers saw clearly that a chief cause of the deplorable result of so much valor had been faulty military technique.

In a technical sense, the root of the evil had been want of mobility under fire and over shell-torn ground. The inability to move forward even machine guns, still more field pieces with sufficient munitionment, through a gap in the hostile front had sooner or later sterilized every offensive. As always, the teams were too vulnerable, and now the amount of shelling necessary to paralyze an entrenched machine-gun defense cut up the surface so that guns and caissons could not be drawn across it. Accordingly, insofar as the problem was purely technical, it boiled down to this: How might it be possible to achieve a prompt decision without ruinous losses? Had Fuller's receipt of April, 1914, been promptly and vigorously applied, it might have sufficed. In the event, however, each gradual increase in the number of almost immobile breaching batteries had been countered by increasing the depth and elasticity of the defense.

As we saw when discussing the German war plan of 1939 in Chapter III, the new German offensive method of 1917-18, culminating in an attack by infiltration regardless of the assailants' flanks, owed nothing to any new military instrument but was a novel use of familiar instruments like the French skirmish lines of 1793. At the same time we saw that in 1916-18 the French and British developed a new instrument, the tank, while the Germans between 1919 and 1939 combined their previous discovery of the infiltrating attack with mechanization both on the ground and in the air. Our question now is: As we look back over the experience of the present war, how far has the plane-tank team made infantry and old-fash-

ioned artillery obsolete in land warfare, and how much further is the present tactical transformation likely to go?

This question has nothing to do with "strategic," i.e., long-range bombing, which will be discussed in the next chapter. Nor are we here concerned with campaigns in which the attack upon and defense of shipping plays a part. For the moment we are considering only the relation of the plane-tank team to the infantry and old-fashioned artillery survivors of the older arms, now permanently combined in the infantry-artillery team, often called the combat team.

In dealing with any matter with regard to which the usage of words is not yet fixed and familiar, it is peculiarly necessary to begin by defining our terms. Thus it is for the sake of clearness that this chapter is called not "The Triumph of Artillery" but "The Triumph of the Gun," because by the term "artillery" we here mean only old-fashioned guns unlimbering for action and do not mean the guns mounted in planes or on ground fighting vehicles. In this sense the self-propelled gun is a sort of tank. Further, we include in the words "plane-tank team" not only planes used as flying artillery, but also the reconnaissance plane and the plane or glider used to transport air-borne troops or other men and matériel.

At the outset we should also note that our conclusions will apply primarily to what may be called normal theaters, i.e., temperate regions reasonably well-provided with people and communications. Since the world abounds in more or less "abnormal" theaters, those conclusions are subject to a considerable measure of marginal modification. For instance, in the rocky mountains of Sicily neither planes nor parachutists could have been landed, and for ground reconnaissance and transport over their narrow trails General Patton's army could use neither wheeled nor tracked vehicles. Similarly, in the Burmese jungles in '42 the British general Alexander found that guns and other heavy stuff were best moved by bullocks or elephants. Nevertheless, wise military policy will try to fit its standard organization and equipment to the conditions under which the great majority of the world's decisive campaigns have been fought, while constantly remembering and as far as possible anticipating the need to improvise under other conditions.

We begin then from the obvious fact that we are witnessing one of the great tactical transformations of history, of a sort almost in-

evitable with our present wealth and knowledge of physical science but nevertheless so unique that the widest possible study of history, as we have just seen, only emphasizes its greatness. From October, 1914, to March, 1918, nearly three and a half years, no offensive moved the western front far enough in either direction for the difference to show on any map of all France except one on the largest scale. In the war which began in September, '39, Poland was conquered in less than a month, France in a campaign of six weeks, Yugoslavia and mainland Greece in less than four weeks. From the breakthrough in Normandy to the crossing of the German border was only six weeks. From the crossing of the Rhine at Remagen to the final German surrender was not much more than two months.

Moreover, the lightning campaigns of '44 and '45 succeeded in spite of strenuous attempts to counteract the plane-tank team. Not only have antiaircraft guns fabulously increased in numbers, but antiaircraft gunnery also has been wholly transformed. Antitank guns and more portable weapons like the bazooka have been multiplied. The American bazooka is a rocket-firing device, consisting chiefly of a barrel open at the breech as well as at the muzzle. Consequently the charge blasts out backward at the same time that it drives the missile forward, the backward blast absorbing the recoil. A dispatch of mid-December, '44, from American Sixth Army group headquarters in France, speaks of "the . . . extremely effective German bazookas, with which one man in fifteen has been equipped." A United Press clipping dated April 11, '45, from Hanover reads as follows: "A couple of Nazi kids, 9 or 10 years old, blew up two of our tank destroyers tonight. They used panzerfausts"—in German literally "armor-fists," meaning obviously anti-armor, i.e., antitank weapons, the German version of the American bazooka. "It's amazing what a nickel's worth of T.N.T. can do to \$50,000 worth of fighting vehicles," a captain said. "A bed-ridden grandmother could fire a panzerfaust without even setting the blankets on fire."

Certainly the moral effect of tanks, however great, is not as overwhelming as at Cambrai in '17, nor is the moral effect of air attack upon ground troops what it was in France in '40 or in Crete in '41. Among disciplined troops the terror inspired by the new weapons is already wearing off, like that inspired by the horse in former ages. In considering the reaction against the plane-tank team, it is signifi-

cant to note that both Rommel in the Libyan desert and the Germans in Italy accomplished much in the teeth of plane-tank superiority.

Strategically, both of the newer arms are more strictly tied to bases and require more frequent rest periods than any of the older arms. The high mobility of both within their zones of action is to some extent balanced by their need to refuel—a need which increasingly affects their action when their theaters of war become larger. Thus they can easily cross Holland, but not Russia. Even in small theaters their periods of activity are limited in time because it is peculiarly fatiguing for men to operate them. Also, their machines require frequent tuning up by specialists. Accordingly, if either planes or tanks are to act continuously they must do so in relays, and in general their great power is somewhat balanced by its discontinuity. Further, on smooth ground outside of the zone of fire old-fashioned artillery unlimbering for action, if motorized, may be even more mobile than tanks.

Tactically, true infantry and men armed with the smaller and lighter sorts of team weapons have the permanent advantage of being able to thread their way through close country and along narrow trails. Also, they can hide or take shelter behind small amounts of cover. Thus they will always remain the dominant arm in certain sorts of terrain. Even in "normal" campaigning country they will be necessary as moppers-up and useful as sentries—land marines, as it were. Bazookas and *Panzerfausts* already give them some power of fighting back against tanks, and should this sort of weapon be improved beyond a certain point, then it is conceivable that they might fight tanks on equal terms.

This, however, seems most unlikely. As far as the present is concerned, the situation is very different. The fire superiority of tanks over men on foot is taken for granted. Opening the *Infantry Journal* for May, '45, almost at random, we find in a combat narrative the following sentence: "This time tanks went in first, blazing away with all their guns, a sight a Doughboy loves best, thinking of all the Doughs it takes to work up that much fire power." For the future we may safely take for granted that guns heavy enough to require mounts fitted with wheels, tracks, or wings will continue to have greater range and power than lighter weapons.

Against old-fashioned field artillery and antiaircraft guns firing from fixed mounts, i.e., mounts on which the piece is not in firing position while in motion, the plane-tank team is in a very different situation. Here, if we include the bomb-dropping plane as a sort of gun and momentarily neglect air reconnaissance and transport, the question is the relative utility of different sorts of gun mounts. On one side we have the fixed mount, i.e., fixed in the sense that the piece when in motion is not in firing position and has to be detached from its motive power before it can fire. On the other we have guns mounted in land or airships. The self-propelled gun, as we have seen, is also a fighting vehicle or land ship.

Here the superior fire power is on the side of the stationary piece. Planes, since they must lift themselves into the air, must be comparatively fragile. Tanks and self-propelled guns must always be bulkier targets with higher silhouettes than those of old-fashioned artillery when unlimbered. Moreover, tank gunners, cramped inside the little steel boxes which make them immune to rifle fire, cannot operate their guns as well as gunners who are free to move. Thus, to speak in very general terms, a sufficient concentration of the various sorts of antiaircraft pieces can make it extremely costly for planes to attack a defended area. Similarly, a front defended by a sufficient number of field guns could hardly be broken by the strongest and most determined tank attack. In this sense the defensive, as always, is the stronger form of war.

Nevertheless, the margin of superiority on the side of the defensive guns is sharply limited by the power of the swiftly moving land and airships to concentrate suddenly and in great strength against any part of the defensive position. Against such a concentrated attack it is still an open question as to how many stationary guns constitute a sufficient defense. Throughout the present war to the time of writing, no fixed defense of an extensive front has been able to hold with anything like the rigidity of the long trench lines of 1914-18. Prolonged immobility has reappeared only on comparatively short fronts like Sevastopol and Stalingrad. Even in Normandy with our backs to the sea, a penetration seventy miles in depth from Cherbourg to Avranches was achieved in less than two months, whereas from October, 1914, to March, 1918, no offensive was able to push back the western front much more than one-tenth

of that distance in either direction. In other words, today the plane-tank team is the master of all except comparatively small, very heavily defended points.

Air superiority gives such opportunities for reconnaissance and for "vertical envelopment" by suddenly landing air-borne troops in hostile rear areas, while both planes and tanks lend themselves to such rapid and formidable concentrations of fire, that the stationary gun—although of course not reduced to the present low estate of true infantry—seems destined to remain secondary throughout any future which we can now foresee.

What will be the prevailing types of planes or ground fighting vehicles is a wholly different question. The possibilities of development are of course very great. For instance, as infantry sinks to an admittedly subordinate position, the principal business of ground fighting vehicles will become that of fighting other vehicles. Consequently, the importance of their gun power should increase while that of their armor should diminish. In other words, the self-propelled gun rather than the armored fighting vehicle might become the dominant type. The dominant type of plane will depend upon the strategic purpose which it will be built to serve. Air strategy, however, will be further discussed in the next chapter. For the present we may be content to conclude that the transformation of land warfare by means of the plane-tank team is unlikely to be reversed and will probably go further.

X. AIR POWER AND TEAM PLAY

AIR power is a thunderbolt launched from an eggshell invisibly tethered to a base.

In this chapter we shall discuss the most controverted question of contemporary military theory: whether that power is best used independently in the hope that it might win a war by itself with only a minimum of support from surface forces, or whether it is best used as a member of a team in which surface forces are also full members.

What makes the discussion possible is first that the long range of certain types of plane permit what is called "strategic bombing"; second that many American, British, and other airmen seem obsessed with this sort of baby killing; third that air forces are perpetual publicity seekers, constantly using the methods of advertising and of high-pressure salesmanship to praise their own arm and to propagate doubtful theories about its use.

Obviously so epoch-making a novelty as flying lends itself to publicity because it fires the dullest imagination. To quote from memory a certain college poem of thirty-odd years ago:

With a lifting of the heart,
And a whirring of new wings,
I, a worm that was, upstart
King of Kings.

Within a generation man has realized a dream of the ages. Most middle-aged people can remember the headlines of 1909 which saluted Bleriot's feat in flying the twenty-odd miles of the English Channel. Today the changes in warfare due to flying can hardly be exaggerated. Moreover, Christendom is still rightly horrified at the wholesale air bombing of cities. This horror has sunk into the public mind; a few inquiries at any dinner table will probably convince the reader that the average American woman thinks the chief purpose of the air program was to keep the Germans from dropping bombs on her particular house.

As an example of how large air power bulks in American public

opinion and also as an example of the verbiage which is often permitted to pass for thought on the subject, we may cite a report of the Gallup Poll reprinted in the *New York Times* for August 9, '42. The question was as follows: "Assuming that land, sea and air power is each important in winning the present war, which of these is the most important?" If anyone timidly objected that this was rather like saying: "Which is the most important tool in a carpenter's kit?", the objection was not recorded. Instead the voice of the public, which we have often been told is the voice of God, answered as follows: "Land power 7%, undecided 10%, sea power 14%, air power 69%."

That the plane has transformed the technique of war is not in question. The argument of this chapter is that the effectiveness of air support of surface forces cannot be denied, while in most cases it is doubtful how far strategic bombing can economize blood for the victor, if at all. Also that whatever effectiveness such bombing may have today is likely to diminish in the near future. Finally that baby killing cannot achieve the only rational object of war—i.e., a better peace for the victor than that which preceded the conflict.

Unhappily, the deep and well-justified impression made by air power on the public mind—irrespective of the stuff like the Gallup poll just mentioned—has all too naturally led to an uncritical reverence for the published opinions of certain aviators, even when those opinions are inconsistent with each other, or when they are being contradicted by well-known and indisputable facts.

A conspicuous example of this is the tolerance shown to advocates of a separate air force. The enthusiasm for baby killing under the nicer name of "strategic bombing" is all there is to the argument for such a force. Lest brevity lead us into superficially intemperate statement, let us rather say, the enthusiasm for military methods calculated to result in baby killing. Of course, the baby killers start with great advantages in any public debate. Planes, they say, now dominate war. Moss-backed generals and admirals are too stupid and hidebound to appreciate fully the importance and still more the future possibilities of air power. Since this is so, the best hope for military success by land or sea lies in the creation of an independent air service emancipated from reactionary control and therefore able to dominate the air. In establishing such a force the United States would be only following the example of Germany and England.

On the basis of present knowledge, the ballyhoo for a separate air force conceals one of the most impudent pieces of shallow thinking ever foisted upon the public. Most of the alleged facts used to justify it are either half-truths or irrelevant to the proposition to which they are supposed to apply.

In support of the charge of inconsistency in the advocacy of a separate air force, let us bring into court Major Seversky—a very gallant aviator with a combat record of which anyone would be proud, but not on that account a clear thinker. On page 312 of his *Victory through Air Power*, in discussing the relation between bombers and fighters, he admits that “. . . bombing capacity must be sacrificed for combat power or vice versa.” This is only common sense, familiar to naval architects since the beginning of human record. Surely it is obvious that no ship or plane intended to carry heavy cargo can be as fast or as heavily gunned as another not so intended. In the surface ship the limiting factor is the displacement; in planes it is called, I believe, wing lift; the principle seems identical. Nevertheless, about halfway down page 316 our author turns a somersault, saying, “Usually . . . the pursuit will find it difficult to penetrate the long-range fire of the superplane close enough to use its own guns.” Six lines farther down on the same page he turns another somersault, this time landing on his feet with the admission: “This [the large future plane], of course, will lead inevitably to enlargement of defending aircraft commensurate with the growing size of the attacking aircraft.”

Writing shortly after the earth-shaking air-supported German ground offensives, he maintains with Douhet that “Our task is to hold the enemy on land and sea with minimal forces . . . and to channel our main energies . . . for massing in the air for a decisive all-out offensive” (p. 348). Never was stranger reasoning.

As if this were not enough, we read on page 72: “Just as the scientist learns from an unsuccessful experiment how to achieve success in the next day, so the Battle of Britain has given aerial strategists *proof* [*italics mine*] that nations can be wrecked and forced to surrender from the air alone.” In other words, the failure of an experiment conducted in a certain way proves that said experiment would have succeeded if otherwise conducted!

Farther on (pp. 174-5) he asserts: “. . . it is quite conceivable that the Germans having few battleships . . . and being . . . con-

scious that many enemy battleships no longer constitute an offensive threat against German-held areas, were not . . . eager to sink them from the air." Why convince the Allies of the fallacy of the psychological dependence upon sea power? In short, it would not have advantaged the Germans to sink hostile battleships as the Japanese have done. Believe it or not, such is his reasoning.

Still another curious weakness of his thinking is his treatment of range in relation to a war of bombardment and counterbombardment. On page 137 we read: ". . . In relation to the huge distances which will soon be compassed by aviation, it will make literally no difference whether a force takes off from the American mainland or from some island outpost a few hundred miles off the mainland." On the next page he says the exact opposite: "Since range and load-carrying capacity complement each other, the striking force of aircraft is in inverse ratio to the distance." Then on page 139 he abandons this second reasonable statement, saying: "As soon as aviation exploits its full technical potentialities of fighting range, intermediary points will be abandoned . . . like so many obsolete outer fortifications." Surely the truth of the matter is plain and the second statement correct. Probably planes will continue to increase in range; if they do, distance will no longer limit their activities as much as it does today. For instance, no spot on the earth's surface would be wholly out of reach of a plane which could girdle the earth and return to its starting point without assistance. But even if we assume such an increase in air range as this, and if we further assume that aerial bombardment and counterbombardment will be decisive in war, still common sense tells us that range and therefore the ability to seize and hold intermediate territorial bases would be vital. Imagine two contending powers, A and B, with a land frontier about equally distant from the vital centers of each. Let the total distance between the two sets of vital centers equal four units of distance. If A advances and seizes and holds a zone halfway between the common frontier and B's centers, then A's planes will have to travel only two units of distance from their new base to drop a bomb on B's centers and then to return, whereas B's planes must travel six units of distance in order to bomb A's centers. Thus A's planes can make three round trips—less only the time needed to reload bomb racks—while B's planes are making one. This will be true irrespective of the extreme range of the planes; they might be

able to fly to the moon or the farthest stars, but intermediate bases which diminished appreciably the distance to be flown to an objective would still have enormous value.

On page 31 we have an error concerning recent history. We are told that the Maginot Line was "cracked," whereas the essence of its fall was that it was turned. It was not assaulted at all until the French counterattacking troops had been drawn off by the German turning movement.

We turn with relief to an error of a lesser sort which can be explained on the ground of mere looseness of statement. On page 95 Seversky writes that the German conquest of Crete proved "... the reality of pure air strategy as the basic component for conquest and victory in our epoch." In fact it was not "pure air strategy" at all, as can be simply proved. Suppose that the Germans who landed on Crete had been transported by sea instead of by air, and that their artillery support had come from guns on ships instead of from machine guns fired and bombs dropped from planes. Clearly, such an operation would not have been the work of "pure sea power" but of sea power and land power combined, for without land troops it could not have taken place. Whether the troops come by and are supported from the sea or from the air does not affect the truth that their success or failure after landing is the test of victory or defeat.

As if this were not enough, on June 19, '42, shortly after the battle of Midway, Seversky wrote in the *New York Herald Tribune* à propos of aircraft carriers versus land-based planes that "events . . . have clearly discredited the carrier and carrier based planes as strategic weapons . . . the American people, including Congress, ought to look more carefully at this aircraft-carrier business. They should do so especially for the light it throws on the character of military thinking which appears to still predominate on our side." Not very long after these words were written, American carrier-based planes began that succession of triumphs over Japanese land-based planes which by the time of Japan's surrender had swept over so much of the Pacific.

Another example of repeated inaccuracies by a distinguished aviator was the case of that very gallant gentleman, "Billy" Mitchell, who commanded the A.E.F. air force in 1918 and would not have dreamed of making an official statement in which he did not fully believe. Alas, his accuracy did not always equal his good faith. Dur-

ing active operations, at a time when the present writer was on duty with a General Staff section at G.H.Q., A.E.F., General Mitchell and his merry men, with himself in the leading plane, would go and bomb some point behind the German lines. On returning he would report that the object of their attentions had been a certain village which, according to him, had been wiped off the map. Too often when the advancing American ground troops presently reached that village, they would find that, far from being demolished, it had not even been scratched!

Having established that distinguished aviators are not infallible, let us sweep aside their inconsistencies and inaccuracies and try to state the real case for strategic bombing as fairly as possible. War is one. It is always the use of organized force between two human groups, each of which insists on maintaining some policy in contradiction to the policy of the other group. While its ultimate object is always a better peace for the victor—"The legitimate object of war is a more perfect peace," as Sherman put it—this goal must be reached by a series of stages. Since man is a land animal, he fights either to perpetuate or to increase his control of certain territories, in order to make the laws of those territories conform to the will of the conqueror. All armed efforts seek to break down the will of the hostile government and people who resist. Decisive defeat of an enemy's army will permit us to occupy his territory. Decisive defeat of his navy will increase our power to use the highway of the sea, and will correspondingly deny that highway to the vessels of our opponents. To seize or destroy his resources by some form of raiding may persuade him to surrender.

We will try to break the enemy's civil will by the most economical means, which in practice will often be the quickest means. It is obviously better to win at small cost in blood and treasure to ourselves—if we can do so—than to win at great cost. Victory too dearly bought may leave us both materially and spiritually poorer than before. Further, insofar as our enemy of the moment is a part of the same cultural and economic system as ourselves, injury which we do him may harm us. In the Spanish Civil War Franco could have smashed up Madrid far more than he did, but he rightly wished to take the capital of Spain as nearly intact as possible.

Most of the ideas of the last two paragraphs can be found in the writings of the chief theorist of air warfare, the Italian general Douhet. If we accept his premise that the bombing of cities might decide a war very quickly, then there is something to be said for his conclusion, i.e., that this means of breaking an enemy's civil will, however superficially cruel, is really the most merciful. Although many people in every fighting country pathetically believe that their airmen bomb only military objectives while their enemies intentionally bomb civilians, we must face the fact that bombing must often be indiscriminate. Douhet's real argument is: Better the death of a few thousand civilians—babies included—in a brief hell of bombing than the massacre of millions of young men as in the trenches of 1914-18. Consequently, if the "air-frightfulness" people are right as to the chances of success for their method, then indeed it would be arguable that most of the money spent upon preparing for war should be put into fleets of long-range bombing planes.

Even then the argument would not be wholly watertight, as we shall see presently in connection with peace. For the moment, however, let us ask only whether Douhet's technical premise is sound.

So far there has been no such thing as a lightning campaign confined to air bombing of land objectives. Every lightning victory has been primarily a surface action with air support. Take so extreme a case as Crete, for instance. There, as soon as the first German glider troops and parachutists landed, their success or failure on the ground decided the success or failure of the operation. The surrender of Pantelleria was preceded by naval as well as by air bombardment, and seems to have been chiefly caused by a lack of fighting spirit in the Italian garrison. We may be certain that with Germans or Japanese there would have been a different story to tell.

By contrast, how many times were London, Malta, Hamburg, Cologne, and Berlin bombed? Before the end of April, '42, Malta, still unconquered as it afterward remained, was said to have endured 2,200 separate attacks. In fact, before the present war the Germans appreciated that air campaigns might be prolonged. In his *Thoughts of a Soldier*, translated in 1930, von Seeckt made this point, and in *Wissen und Wehr* for July, 1939, a General von Tempelhof reached the same conclusion. Seldom has any military forecast been so well justified.

To see why independent air operations drag so, we need only glance at the history of strategic bombing in the light of military history as a whole.

"Preposterous!" say the bombing fanatics. "Nothing can be proved from the old wars, because flying has made everything different. Soaring through the heavens, we have made a new earth in which no argument from the past still holds good." Waiving the question as to whether they have merely enlarged old savagery, let us see how far they have really thrown the past out of court.

Successful strategic bombing is a hit-and-run business. If the various defensive devices—fighter planes, antiaircraft guns, barrage balloons, etc.—could be assembled promptly enough and in sufficient numbers over any city or other locality which was about to be bombed, effective bombing, at least by day, would be impossible, and attempts to bomb would be so costly that they would soon be abandoned. In other words, both by day and by night the bomber acts by evasion. He does not expect to have to defeat a defensive concentration. Even when he is courting combat with defensive fighters, like the American bombers over Germany in '44, still he knows that he will not have to meet anything like the full strength of the defensive fighter force, which has many widely separated localities to protect.

Now, mobility is relative, and acting by evasion—generally called raiding, or at sea commerce destroying—is as old as war. Also, air bombing is only one form of bombardment, and bombardment as such is many centuries old. Consequently it is at least possible that past forms of raiding or of bombarding may still have something to teach us.

Suppose, reader, that you saw the following words printed: A superior air force "... may excite ... apprehension at distant parts of the enemy's country ... can carry off his convoys ... can encircle his army, make his communications very perilous, and destroy the ensemble of his operations. In a word, it produces nearly the same results as a rising en masse of a population, causing trouble on the front, flanks, and rear of an army, and reducing a general to a state of entire uncertainty in his calculations." A literary critic might guess from the style of the passage that it was not written yesterday, but the ideas expressed are certainly up to date. Within the quotation marks, that passage is lifted bodily from a translation

of the chapter on cavalry in Jomini's *Art of War*, which was first published in 1836. Mobility is relative. Although in 1914-18 the size of the armies blocked off whole theaters of war, that blocking was a new, unprecedented thing. In the old wars cavalry, the mobile arm of the old land campaigns, could—like the air forces of today—operate with a degree of safety at considerable distances from the main body of the armies to which it belonged. In fact, this was the accepted role of independent cavalry, as distinguished from accompanying cavalry, which was kept with the other arms for the sake of close reconnaissance. In other words, the mobility of horsemen acting by evasion made them capable of guerrilla, i.e., small war, activities. Let the independent cavalry represent the strategic air force while the accompanying cavalry represents the tactical air force and the obvious resemblance is striking.

The diversionary effect of cavalry raids was often great. The mere threat of them was sometimes enough to immobilize in hostile rear areas defensive forces much greater in numbers than the potential raiders. Nevertheless, the usefulness of raiding was limited because experience showed that to detach force for raiding purposes might result in the loss of a battle of which the consequences would be greater than those of many raids. A classic case is Lee's detachment of Stuart during the Gettysburg campaign, which detachment has often been considered a chief reason for Lee's defeat in that campaign.

In modern times raiding by sea has been more important than by land. In the Anglo-French wars of the eighteenth and early nineteenth centuries successive French governments, after the defeat of their battle fleets, tried again and again to bring down England by sending out fast ships to prey upon her merchantmen. It looked so cheap and easy! Those fast ships could always get to sea but invariably they failed to get a decision. The English took appropriate measures. Under the direct or indirect cover of their battle fleets, they grouped their merchantmen in escorted convoys. They did their best to blockade the ports used by the French commerce destroyers. The latter indeed caused damage, sometimes much damage, but every time that the French stopped sending battle fleets to sea England won the naval war.

Up to 1914 the increasing size of armies and the extreme rapidity both of strategic movement and of communications tended to re-

strict raiders both by land and sea. In 1914-18 surface raiding by land was hardly possible at all. In that war, however, the appearance of two new instruments capable of tridimensional movement, the submarine and the plane, opened up new possibilities of raiding and then evading pursuit. In '17 the submarine nearly decided the war, but just in time the Allies turned the scale as it had always been turned against raiders. In that war air raids on cities had a considerable diversionary effect. They caused numerous absences from work for several days after each attack, thus retarding production. They also compelled the "locking up" of appreciable numbers of defending planes, antiaircraft guns, and personnel at home, all of which would otherwise have been available on the fighting fronts where a decision was being sought.

Nevertheless, the air raids of 1914 cannot be said to have affected the result of that conflict. Moreover, the large measure of success achieved by the German submarines of 1917 was directly due to the slowness of the British Admiralty to profit by the experience of the old naval wars by instituting the convoy system.

In a word, the universal experience of history is that battle decides. Evasion by means of hit-and-run raids may irritate, but the destruction of your enemy's organized forces in combat has invariably been the means of victory. When either side, like the French in their old naval wars against England, ceases to challenge its enemy's organized forces, then that side has been defeated. The raider who seeks to avoid combat is like the gangster who flourishes his pistol but seldom dares to fire it, because he knows that to do so will bring the forces of law and order down upon him. To parallel the measure of strategic success achieved by the German submarine raiders of 1917, we must go back to the Viking and Magyar raiders of the Dark Ages who profited by the decay of the Roman professional army system. When our European ancestors at long last took appropriate measures, in their case castle building and the feudal system of local militias, the heyday of Viking and Magyar bandits, like that of the German submarines in the last war, was ended. Should anyone cite the effectiveness of the Spanish guerrillas in the Napoleonic wars, we answer that that effectiveness was shown only in partnership with the English Army based upon the sea. Had Wellington been driven from the peninsula, the French could then have policed the guerrillas at leisure.

At this point the bombing enthusiast might object with some show of reason as follows: Although I admit that raiders who seek to evade combat can seldom decide a campaign, I deny that the great air armadas of today are of that sort. On the contrary, they sweep boldly through the skies and challenge the enemy to battle. While it may be true that the war effort of a large country containing many cities and very many factories cannot be paralyzed from the air, still the communications of such a country can be so interfered with by bombing that something like an internal blockade can be set up. Further, the bombing of cities can be a serious thing. Finally, strategic bombing has the great advantage to the attacking side of exposing to wounds, capture, or death only a fraction of the number of men exposed during ground attacks. This raises an argument of a different sort from that involved in the term "raiding," i.e., the effectiveness of bombardment not promptly followed by assault.

These propositions deserve full consideration, especially that based upon economy of blood. If the bombing of hostile cities, communications, and other rear areas, however prolonged, could finally win a war with fewer casualties to the victor than would be incurred in ground campaigns plus tactical air action, then—as in the case of Douhet's imaginary lightning victories—such bombing might be justified, except perhaps for the trivial matter of the subsequent peace.

The trouble is, as Fuller aptly puts it, that the flying artillery of the air is still artillery. In other words, air bombardment is only another form of bombardment, and the universal experience of war is that the effects of bombardment not promptly followed by assault are negligibly small compared with the effort made. There have been a few examples of fortified places surrendering to ground bombardment alone. For instance, in 1792, the first year of the Revolutionary-Napoleonic struggle, the people of the French towns of Longwy and Verdun, accustomed to the rational and kindly methods of eighteenth-century limited war, prevailed upon their garrisons to surrender when the Prussian besiegers violated custom by bombarding not the fortifications but the houses of each place. Even this small measure of shabby success has as yet been denied to aviators.

The reason why bombardments alone have had such negligible

results is that if you do not follow them up by an assault you do not profit by one of their chief effects, i.e., the severe shock which they inflict on the nerves of the defenders. When first bombarded, one is very badly frightened indeed. If the dose be repeated, one of two things happens, according to the severity of the ordeal and the nervous resistance of the individual: Either self-control is temporarily or permanently destroyed, or else the shock becomes less with repetition. How many people have been permanently driven mad or at least had their nerves shattered by air bombing since '39, we do not know, and probably we never shall. We do know, however, that that number has never been enough to paralyze the life of a single city. Even the prolonged shelling of 1915-18, and shelling can be far more continuous than air bombing because the plane cannot remain long over the target, never knocked out all the defenders of a sector.

Next, although the moral effect of air bombing has never been decisive, still that moral effect seems to be far greater in proportion to the air effort than the actual physical effect. This is especially true with reference to single raids not repeated again and again. In the last war the physical damage was microscopically small, compared to the effort made. The present writer vividly remembers one night in Paris in 1917 when he expected to find much of the city in ruins next day, only to discover on diligently looking for the damage in the morning that the place was practically unscathed.

Of course, says the airman of today, we have changed all that. We hit what we go after. Look at the ruins which we leave behind us.

The quantity of ruins is indeed impressive. On the other hand, the Anglo-American bombing effort has been colossal. The real question is: What is the relation between the two?

To give a final answer one would have to know first the amount and cost of the explosive and incendiary bombs dropped and of the bombers and of the whole organization behind them—using the cost as an index of the labor and materials expended. Next one would have to know how many bombs landed harmlessly, how many destroyed objects of no military value, how many examples of destruction were "borderline cases," and how many hits certainly produced military dividends.

Although in the present state of our knowledge we must be con-

tent with the roughest and most general appreciations, nevertheless our knowledge of results is enough to give those appreciations some value. Everyone knows that the cost and volume of the bombing effort has been fantastically large. As to the percentage of hits, the dreadful fact has now leaked out that there has been a large proportion of what would be called on the target range "clean misses."

As to the inaccuracy of the plane as flying artillery, a few newspaper clippings will give at least a glimpse of the truth. On March 18, '42, the British Foreign Office "expressed regret for the accidental bombing of the Turkish town of Milas last Sunday by R.A.F. pilots participating in a night raid on the Italian [occupied] island of Rhodes." Milas is a little matter of sixty air miles distant from Rhodes.

On April 1, '42, a U. S. communiqué from the Philippine theater said: "A formal apology was made by the Japanese Imperial High Command . . . for the aerial bombing of our base hospital in Ba-taan. In a radio broadcast a Japanese Army spokesman declared that the bombing was unintentional."

On December 4, '44, the Mediterranean Allied, i.e., Anglo-American, air force headquarters admitted that on November 7 a U. S. fighter squadron had "attacked by mistake a Russian column. The error was . . . due to . . . faulty navigation. The U. S. Joint Chiefs of Staff from Washington expressed their deep regret. . . ."

A United Press despatch of January 16, '45, from Paris reads: "A bizarre footnote was added to the tragedy of Malmedy . . . the American pilots who mistakenly bombed the city twice in twenty four hours also showered the stunned people with leaflets calling upon them to surrender . . . while American troops were still billeted in their homes."

On February 22, '45, the *New York Times* printed a message from Berne, Switzerland, as follows:

At least sixteen persons are known to have been killed and twenty-eight seriously wounded when American planes, attacking objectives in southern Germany just north of the Swiss frontier, between Basle and Stein-am-Rhein, toward noon today, dropped bombs on five Swiss towns and villages.

The bombings occurred only a few minutes before the arrival in Schaffhausen of Lauchlin Currie, head of the American economic

delegation in Switzerland, who had gone there to lay wreaths on the graves of thirty-seven persons killed on April 1 last year when American bombers missed their location and hit Schaffhausen.

Mr. Currie was quoted as having assured the Major that he would ask President Roosevelt to take all steps necessary to avoid a repetition of these accidents.

In the following month, March, '45, it was German-occupied Holland's turn. A United Press item from London in the *New York Times* of March 26 tells us that

At least 800 Netherland civilians were killed, 1,000 injured and some 20,000 left homeless in a bombing by error at The Hague, German-occupied capital of the Netherlands, by British planes on March 3, the United Press was informed today.

About one-sixth of the city, which had a prewar population of 495,000, was destroyed, the informant said.

The British Government described the incident as a "deplorable catastrophe" in replying to a request by the Netherland Government for an explanation.

Planes of the Royal Air Force's Second Tactical Air Force arrived over The Hague in the early hours of March 3 for an attack on nearby launching sites from which the Germans had been sending V-missiles toward England.

"Because of an error in judgment," the RAF bombs fell wide of the mark and landed in the heavily populated civilian area, the British Government informed the Netherland authorities.

The official British inquiry is still proceeding and disciplinary action will be taken if blame can be established, it was said.

Witnesses who subsequently escaped from the bombed zone described the devastation as "horrible." The situation was aggravated by the starving and ill condition of the civilian population.

The Hague had never before suffered a major air blow, although there have been small incidents during the occupation.

Shortly afterward U. S. planes strafed, i.e., machine-gunned American prisoners of the Germans. A Washington Associated Press despatch in the *New York Times* of April 9, '45, says:

Masses of migrating war prisoners in Germany have occasionally been strafed in mistake by American planes, a War Department spokesman said last night.

"It is hard to understand how this happens, as our pilots are briefed about prisoner-of-war movements," Brig. Gen. B. M. Bryan, assistant provost marshal, told a meeting of prisoners' next of kin. "But the truth is that things are changing so fast over there that it is impossible to brief the pilots accurately. The pilots' instructions are to disrupt transportation and strafe every German vehicle they can on the roads."

The record for bombings of neutral territory seems to be held by the Portuguese colony of Macao in China. A Reuters item from Lisbon in the *New York Times* of April 12, '45, carries the headline: "U. S. Regrets Macao Blow. Apologizes for Second Attack Even as a Third Is Charged." The item continues:

The United States Government expressed deep regret for the second bombing of the Portuguese colony of Macao, China, and has offered to pay compensation, an official statement by the Portuguese Government said today.

"Unfortunately, immediately after these correct explanations had been received, the Governor of Macao reported a new incident," the statement added. "An American bomber strafed and sank a tow-boat at the entrance to the port, killing nineteen and wounding five of the Chinese crew.

"The Portuguese Government protested again in Washington and asked the United States to draw the attention of Far Eastern Commands to the necessity for avoiding a repetition of such actions."

The one thing of which we may be certain after reading the foregoing fragments of this tragedy of errors is that, as with an iceberg, most of the matter remains below the surface.

To turn from chronicle to analysis, a most intelligent British officer on the retired list wrote from London in November, 1940: "We spend half the week here and half in —, as my wife can't sleep, not on account of the bombing, but the gunning [i.e., the anti-aircraft artillery] . . . Personally I think most bombing . . . is destruction of things a war is supposed to safeguard. Whatever the airman may say, his machine is at best . . . a most inaccurate long range gun. Its normal error is at least half a mile, and frequently double that distance when firing from above 10,000 feet"—i.e., more than half the distance from plane to target.

Let the reader take a large-scale map of any great city with which he is familiar and draw on it anywhere he likes a circle with a quarter-mile radius. Within that circle he will find a surprising amount of "dead ground" where no explosive or incendiary bombs could possibly do appreciable damage. The destructive radius of explosive bombs in particular is strictly limited, and the larger the individual bomb the fewer can be carried. The reader curious about such matters can find a fuller analysis in a book called *Bombs and Bombing*, by Mr. Willy Ley, the science editor of the near-communist New York paper *PM*, and published toward the end of '41. For our purposes it suffices to know that even in a huge place like London or New York many bombs fall harmlessly.

As to the effects of German bombing in England, this conclusion is strengthened by a carefully written book called *Hell Came to London*, by an English journalist named Basil Woon, reviewed in the London Sunday *Times* of March 2, '41. According to the reviewer, Mr. Woon "sets down the details of a walk; during one night raid, from Cork Street to Bloomsbury during which he was admittedly terrified, though sufficiently cool-headed to count the number of bombs (forty-two) which fell within earshot during its progress. His immediate impression was that most of the West End had been destroyed—and that impression was, in fact, given quite innocently in a number of reports published in neutral countries.

"Most newspaper men would have left it at that. Not so Mr. Woon. The next morning he retraced his itinerary, and found that the actual damage was far, far less than he had supposed. This professional integrity breeds in the reader a feeling of confidence in his statements." Even without this last assertion the present writer would have believed Mr. Woon, because the gist of what he says follows exactly the vividly remembered experience of 1917-18.

Let us now take a little German testimony. Without putting the smallest faith in the mere assertions of German propagandists, we may at least be certain that they will not habitually tell their own people the sort of lie which they will not believe. To do so would be a boomerang. Now, the habitual German propaganda line concerning Anglo-American strategic bombers has been to call them "terror bombers," thus asserting that the general effect of what they do shows that their intention is not to hit precise objectives but merely to terrorize the population. Something of this claim the

RAF has already admitted by coining the mild phrase "area bombing."

In support of this admission we may quote General Fuller's article "Attack by Terror," first printed on August 20, '43, and reprinted in his book *Watchwords* (Skeffington, London, '44):

On August 1, the "Sunday Express" published an article "Hamburg's Week of Terror"—a literally true heading. The "Sunday Pictorial" of the same date published another—"Hamburg Is Dead," in which it quoted a Hamburg Danish Consular Official as saying: "Hamburg has ceased to exist. When you drive through the city you drive through corpses. They are all over the streets, even in the tree tops. . . . I can only tell what I saw with my own eyes—district after district literally razed to the ground." This is confirmed by Reuter who, on August 12, reported, "In two districts—Eimsbuttel and Altona—there is not one stone left untouched." Eimsbuttel I know well, it is purely a residential quarter and far distant from the port. Finally, on August 19, all possible doubt was dissipated by Mr. Brendan Bracken, who said that plans are being made "to bomb and burn and ruthlessly destroy in every way available to us the people responsible for this war" (Daily Mail).

The general impression given by the Danish Consul is backed not only by the mere existence of the German propaganda line, but also by an appreciable amount of neutral testimony which has come out of Germany. As far as the U. S. Army Air Force is concerned, no one in his senses would deny that their intention has been to bomb precisely. All that is asserted here is that their results have often been less precise than their intentions.

Here the history of the old wars, which bombing fanatics say they have buried beyond hope of resurrection, bobs its head up again. The talented French admiral Castex on page 355 of Volume I of his admirable *Théories stratégiques (Lectures on Strategy)*, published in 1929, speaks of a booklet by a General Borgnis Desbordes on *Coastal Operations and Landings* which shows that naval bombardments of coastal points have had little material effect. The survivors of Tarawa will agree that in both air and naval bombardments the chances of error are great.

Having established that many bombs fall harmlessly, let us next consider those which destroy something valuable. We find that

many objects ordinarily considered valuable have no military value to the strategic bomber—churches, museums, theaters, etc. Except for the incidental death or wounding of a very few people, not all of whom were of any use to the British war effort, the fortunes of German arms were in no way advanced by destroying Coventry Cathedral, the London churches in the old city, or the cramped debating hall of the House of Commons at Westminster. Correspondingly, the strategic bombing of German churches or of the Berlin opera house in no way advanced the victory of the United Nations.

Next we note that many houses and apartments, tenements and other dwelling places in any city are as militarily valueless as the buildings considered in the last paragraph. If Buckingham Palace had been demolished, obviously the survivors among those who had lived in it would have found shelter elsewhere. Further, as soon as any city has been bombed a few times, often as soon as bombing is threatened, there is a great exodus from that place, so that a vast surplus of housing is immediately available. The "useless mouths" are evacuated as they used to be when a fortified city was threatened with siege in the old wars. Of course, mass evacuations are often unpleasant and may be tragic, while the smashing of militarily useless buildings is merely stupid and disgusting; the point is that after these things have been inflicted upon your enemy he is materially as strong as before. Materially, you have wasted your effort. Morally, that effort may have recoiled upon you because your enemy is angrier than he would otherwise have been.

If the destruction of housing be continued, it is true that a time will come when the surplus produced by evacuation begins to be used up. Houses first become borderline cases of doubtful military value, then military necessities without which the war effort suffers. In addition, most factories and communications, together with a minimum of public services such as water and sewage disposal, have been military necessities from the first.

Here, however, a new factor comes in. The enemy reacts. Before the war he will have prepared a certain amount, perhaps a large amount, of defense. As the war continues he will do his utmost to repair or replace what he must have in order to go on fighting effectively.

Of course, in some cases repair and replacement will be easier than in others. For instance, before the present war an American

lieutenant long on the Chinese station wrote in the *U. S. Naval Institute Proceedings*: "It is a standing joke among foreigners resident in China that it costs the Japanese Air Force a thousand dollars to blow a hole in a building which the Chinese can repair for two dollars 'Mex.'" Never mind, said the bombing fanatics. That may be true in a nonindustrialized country like China, a society like one of the lower animals which if it loses a limb can grow a new one, but in a highly industrialized country things will be very different. Well, we have now seen England successfully resist the German Air Force, outnumbering her own by three to one and possessed of great geographical advantages. We have also seen the Germans go on fighting long and hard against a far superior total of Soviet, English, and American numbers, although those Germans had for years received the persistent attentions of the greatest air force yet seen. In short, to knock out an industrialized country from the air is much harder than the more sanguine bombers had anticipated.

And yet on the face of the matter, like commerce destroying in the old naval wars, it has looked so cheap and easy! Why then was it so difficult?

Already we know a good deal about the answer. A few statistics from any standard reference book, a little study of results in England in 1940, and a moderate acquaintance with military history go a long way to giving that answer. After the annexation of Austria and the Sudetenland, the Reich covered more than 225,000 square miles and had more than 80,000,000 people. England, Scotland, and Wales together have an area of less than 89,000 square miles and a population of nearly 45,000,000. And yet, notwithstanding the greater density of the British population and the many geographical advantages possessed by the Germans, if we put the smallest faith in British official statements we must conclude that only a handful of Britishers were killed or injured from the air. On October 19, 1940, the official figure from June 1 through September 30 was only 8,365 killed and 12,352 injured, a total of 20,717. On April 10, '45, the total of civilians dead and wounded from the air and otherwise in the entire British Empire, including 34,161 merchant seamen, was only 144,542 in five and one-half years. In short, British civilian casualties, however horrible in themselves, were numerically unimportant. Even if we assume, in spite of the lesser density of German population and the longer flying time required to reach

them, that the vast Anglo-American air effort inflicted German civilian casualties double or treble those suffered by Britain, such losses would still fall short of being numerically serious.

An interesting interview given in January, '42, by Mr. Noel F. Hall, British minister to Washington in charge of economic warfare activities of the British Embassy, said that the objective of bombing is more the mind than the body: "The cumulative effect of petty annoyances through the temporary loss of . . . small things must . . . have been more serious to the morale of heavily bombed populations than would have been a larger number of deaths and serious injuries We prepared too many hospitals . . . too many shrouds, too many graveyard sites. We had not prepared sufficiently to give to large numbers of people, whose clothes had been rendered temporarily useless, clean shirts or shoes or warm clothing, or to give women combs, hairpins, face towels and cooking utensils to replace those that had been rendered temporarily useless by all the dirt and dust that flies about after an air raid." In other words, air raids destroy not so much life as its comforts and amenities.

In the German case we know something about the way the damages were repaired. Since the chief victims were not people but buildings, and since factory workers' housing spreads over a larger area than is occupied by the factories and is on the whole more vulnerable than communications, one would expect to find the greatest need for repair and replacement there. On April 28, '41, the *New York Sun* quoted Nathaniel C. Curtis, head of Tulane University's Architectural School, to the effect that houses in the future "defense cities" would be "small units of specialized design. . . . a feasible plan would be to construct them in two parts—one section so flimsily built that it would yield to a bomb blast . . . the other section, containing sleeping quarters . . . to be a solidly constructed shelter." Nearly four years later on March 10, '45, the well-known correspondent Mr. Gault MacGowan wrote from outside Düsseldorf in Germany that the Germans had faithfully copied Mr. Curtis' formula:

One of the secrets of the Nazi workers' resistance to the Allied round-the-clock aerial offensive was revealed today when I inspected some of the latest Hitler "Sleep-Easies." These stood in long rows,

lining a street beside the ruins of a gutted factory which a few weeks ago had been one of the centers of Hitler's decentralized war industry, operating an underground workshop.

The "Sleep-Easies" are homes for bomb-happy workers and their families—little private homes, the tops of which are made of prefabricated wood sections which the bombers can blow up today and the Nazi czars can replace tomorrow.

The secret of the "Sleep-Easy" is that the floor is constructed of solid reinforced concrete with massive steel girders, and forms the roof of a basement below, where there are two bedrooms, Goebbels-tuned radios and a picture of "our dear Fuehrer," the German workers' friend.

A heavy steel trap-door leads to the basement. The tenants sleep underground peacefully or retire there during daylight raids, not caring whether, when the siren sounds the all clear, the upper structure will still exist or will have been blown away. A Swastika-marked van will deliver a new superstructure tomorrow, new mass-produced furniture and a kitchen stove. The valuables stay underground, along with the dear Fuehrer's picture.

It's unhealthy sleeping underground, however, so the father at bedtime puts out the cat and leaves the trap-door open. When the siren wails, he battens down the trap-door. However, there is a ventilation shaft for protracted raids.

These rows of homes resemble lines of super packing cases. They brought a demand for white wood that caused the recent ban on making coffins. The shacks have sloping roofs covered with waterproof material and vaguely resemble Cape Cod cottages. A tenant can paint his house if he can find the paint and believes that it will stay put long enough to justify the labor.

But here is how Hitler keeps his tenants happy. The fittings of the average German home impress even the Americans.

"These people seem to have everything," one Yank told me, "electric irons, refrigerators, washing machines, built-in ironing boards, electric toasters, alarm clocks, radios, accordions and mouth organs. I've never seen workers with so many things since I left home—everything that's short elsewhere."

Another secret of the Ruhr workers' confidence has been the huge anti-aircraft installations intended to discourage our bombers. Observers in the Duisburg area said that they had never seen such heavy sky curtains anywhere. Our troops were amazed by the volume of the airbursts that they have seen over the hillsides of the Ruhr valley.

The flyers who are braving this terrific flak receive the troops' applause. The soldiers understand now what is behind that familiar communiqué line: "Six of our bombers are missing."

Turning from the replacement of housing to the safekeeping of essential buildings, we find that something of the various devices used by the Germans to conceal or protect their key factories, which are of course harder to replace than housing, has become known since the invasion of their country. The three chief procedures were decentralization, concealment, and strong overhead cover. The variations played on these themes will no doubt be studied by architects and military engineers for years to come. A few headlines and fragments of text on the subject read as follows: "City under Berlin Found by Russians . . . an Underground Palace"; "Hidden Factories Kept Reich Going, Industries Were Buried . . . in Depth of Forested Regions"; "Berlin Growing Trees on Roofs as Camouflage against R.A.F. . . . outlines of ponds altered . . . small bodies of water . . . concealed completely by . . . painted nets . . . by planting rushes or . . . setting out rafts covered with sod"; "Camouflage 'Phantom City' in Ruhr To Fool Allied Aviators"; "Berlin Chiefs' Lair Deep under Earth"; "Moselle Arsenal Eludes Our Fliers, Difficulty of Knockout from Air Shown by Vast Plant Fleeing Foe Left Intact"; "Germany is . . . sprawled across the map of Europe, and the targets for raiding . . . bombers are innumerable"; "Nazi Plane Factories Dispersed . . . the process of decentralization can be indefinitely continued, the [German] Fighter [plane] production is no longer an economical target"; and so on for column after column of type.

Turning aside into the future for a moment, we should note an almost wholly neglected truth. Whatever degree of effectiveness strategic bombing has today it will lose tomorrow, unless mankind criminally neglects moderate preparation of cities against the air threat. This statement may shock popular opinion, which believes that the bomber, being new, has hardly yet begun to fight. The one chance in favor of a repetition of recent calamities is that the threat may be neglected. Such neglect may happen; Fuller (*Watchwords*, p. 71) writes: "Before me lies a booklet entitled 'London Re-planned.' Though its illustrations are those of a super-Athens under

a super Pericles, a tiro can see that they are also super-bomb targets."

Nevertheless, the rational future course has been clearly and often pointed out. For instance, the *New York Herald Tribune* of September 21, '41, says:

Cities of the future will be "fortified," Michael Rosenauer, Fellow of the Royal Institute of British Architects, declares in a survey of "The Architect's Position in the Present Period of Emergency," prepared for the American Institute of Architects.

"Just as the plan of a medieval town with its fortified surrounding walls reflects in its defense precautions the kind of attack to which it was exposed, so the future planning of our cities will be directed by defense precautions against attacks from the air," Mr. Rosenauer says.

Public shelters should be constructed as dormitories, Mr. Rosenauer points out in comparing American and British conditions. "According to actual experiences of London, the time people have to spend in shelters extends over a longer period than originally anticipated when indiscriminate bombing was not anticipated," he explains. "Any shelters offered to the public should consequently be regarded as dormitories with the safety degree of bomb-proof shelters.

"The protective qualities of a bomb-proof construction allow the assembling of people and permit a centralized organization in its design. Such organization facilitates the installation of adequate plants for air-conditioning, protective measures against gas attacks, the proper arrangement of first-aid and cleansing stations which form an integral part of shelter constructions.

"Bomb-proof shelters can be planned on a sufficiently spacious scale to offer numerous possibilities for peace-time use, thus balancing the greater capital outlay. Their design should take advantage of the fact that the effect of bomb explosions on shelter walls above and below ground indicate lower construction costs for shelter space above ground than for basement floors.

"The provision of shelters in large individual buildings requires careful survey of existing structural conditions, as well as elaborate studies of possible shelter locations inside the buildings. The British regulations make the building owner responsible for these provisions and grant a subsidy for work in this connection. The planning of

this category of shelters was usually intrusted to private architects. Private architects also planned and supervised the construction of individual shelters in private houses."

Nor is the above quotation an isolated instance. Other architects and engineers have actively studied the problem, always on the same line of dispersion, concealment, direct protection, minimizing damage, and ease of repair. The sort of building which has been found most durable is that with a steel frame, because of its elasticity. The direct protection of a skyscraper should take the form of a strong, deeply sloping roof off which the projectiles might glance, together with one or more strengthened floors in the upper part, and vertical walls for the lower stories in order to resist the horizontal blast of bombs which might land in the streets near by. Doors should have passages with at least two right angles in order to minimize blast. The replacement of ordinary glass with nonshatterable glass should be encouraged. Particular attention should be paid to every possible sort of fireproofing, for fire is a far worse enemy than explosives because of the way a blaze can spread of itself once it is well started. For instance, photographs of Rotterdam suggest that most of the damage done in the shameful bombing of that place when defenseless was done by fire. Light and water mains should be buried well below the surface. In congested districts where the protection of entire buildings is impracticable, abundant impregnable and comfortable shelters should be built.

Of course, all this sort of thing will be expensive and a great nuisance, but it can perfectly well be done, and even a moderate degree of it will vastly reduce the effectiveness of future attempts at baby killing. After all, the bomber, however formidable, is not a magician, so that the dangers to be prepared against in any given case should be those which in the judgment of experts are really to be feared in some future which we can now foresee. Expensive and obviously useless nonsense like much of the recent air-raid precautions in the United States should of course be resolutely avoided as a waste of time and money. If their object be merely to make people "war minded," surely that can be done in more sensible fashion. While millions of man hours and dollars were being squandered in sky watching and in buying expensive equipment, Lloyd's of Lon-

don was serenely betting odds of a thousand to one that no American city would be bombed.

Although we need not try to foresee too closely what Europe will be like in the near future, the air threat is obviously greater there than here, and therefore also the desirability of serious antiaircraft fortification. Everyone except those to whom the term "medieval" is a synonym for gibbering horror will welcome Mr. Rosenauer's evocation of the medieval town in the passage quoted above. The abundance and the great strength of fortification in the Middle Ages were among the chief reasons why the frequent armed brawls of that period did not strain the social order of Christendom; in other words, why within Christendom that time—unlike our own—was one of strictly limited war. Americans who have seen Europe will remember how strenuously our comparatively poor ancestors there fortified not only throughout the Middle Ages but also in the early modern period. After all, the last nineteenth-century siege of a great European city, that of Paris in 1871, took place less than fifty years before 1914 and was a long, difficult business necessitating a great military effort on the part of the besiegers.

By contrast our cities, having been built without reference to the air threat, actually invite bombers, as an assistant federal housing administrator said a few years ago. In London, we were told late in '41, only one building was capable of withstanding a direct hit with a 2,000-pound bomb.

On any subject less tragic than that of baby killing, the gradual disillusionment as to strategic bombing which has been reflected in the American press would be funny. When confronted with the contrast between their vast devastations and the comparatively small military results of so much destruction, the strategic bombers have indeed continued to boast but not so loudly as before. German plane production, as they now admit, they never were able to shut off, but they still tell us that they did much to hinder railroad transportation and to halt the manufacture of synthetic oil and gasoline, which may indeed be true. It is also true that rail transportation usually deteriorates during a long war even when there are no bombers around. If it be the fact that synthetic oil manufacture was greatly curtailed, we may be sure that before the

next war breaks out strong efforts will have been made to see that that cannot happen again.

Meanwhile, the boastings have been accompanied by an increasing undertone of caution from the professional apologists for bombing and of counterassertion from other writers: "We should not expect the results of these or other such attacks to be decisive"; "The trickle of oil that flows from synthetic plants is enough for Hitler's resistance effort"—this last from late February, '45; "Allied air raids fail to stop up Brenner Pass"—at the beginning of the Italian campaign gentlemen high in the councils of the RAF solemnly insisted that all organized communication across the Alps could and would be cut by bombing; "German production for war was never really crippled from the air"; "The Anglo-American Air Force never claimed that they had destroyed Germany's iron and steel industry. They knew, too, that many a plant was quickly repaired"; "What is of interest is the amazing ability of the Germans to resist"; "Here was the annihilation attack, but yet Cologne was not, it seemed, annihilated . . . the city itself is found [by the Anglo-American ground troops] to be still alive, inhabited . . . reducing a city to rubble actually makes it a better fortress than before . . ."; "Many thousands of bombs missed their mark"; "The war potential of a great modern industrial nation has proved a much tougher fabric than anyone dreamed . . . the real decision still has to be fought out on the surface."

In spite of all that censorship can do, a few harsher notes have mingled with the rising chorus of disillusionment: "The strategy of bombing Germany into surrender is not arm-chair strategy. It is street-corner strategy"; "Air war's bark exceeds its bite"; "Air power of the strategic bombing variety has been relied upon to win a war. . . . This was a grave mistake. . . . Air exploits have been given exaggerated importance . . . realism has too often given way to wishful thinking"; "It is about time someone said what air power cannot do, since the press agents . . . seem determined to tell only one side of the story . . . the words 'precision bombing' are of course completely false, a press agent's dream. The public sees only the precision bombings that come out well on the photographs. It never hears about the innumerable bombs that miss. . . . Top airmen like . . . Doolittle and . . . Leigh-Mallory make no absurd claims for air power."

Let us summarize very briefly the record of air power since September, 1939. The Red Army has achieved much without any strategic air force. To what extent the Soviets may have benefited by Anglo-American strategic bombing we do not know. The German lightning victories culminating in the fall of France and those in the Balkans and Crete were made possible by great superiority in air power used as part of an air-surface team. On the other hand, German strategic air power suffered a resounding defeat over England. On the Italian mainland Anglo-American air superiority long failed to break German resistance on the ground. In fact, the failure was so conspicuous as to suggest that a quicker decision with fewer casualties might have been had if a larger number of the airmen there had been ground troops.

This brings us to the campaign of France in '44. Without air superiority, of course, that campaign would have been impossible. Yes, but what part did the strategic bombing of cities, factories, and communications far behind the fighting front play in the victory? The airmen who have been proved wrong in such obvious cases as London and Cassinò ask us to believe that only their persistent baby killing could have worn down the German Air Force sufficiently to permit our ground troops to land in Normandy and to fight victoriously there. The least that can be said is that this assertion is suspect.

The gem of the author's journalistic collection on the subject is an article which appeared in the *New York Times* of May 25, '45:

Hamburg, May 23. Two American railroad men said today that German railway officials had told them that the Allies' bombing of Germany's rail service would have been more effective if it had been concentrated against main lines rather than the city yards, where repair crews were immediately at hand.

The Americans are Ralph Russell of Haverford and Northumberland, Pa., an official of the Pennsylvania Railroad, and his assistant, Warren Caswel of Rockville Center, L. I. They had been surprised to find the Hamburg railway system actually 95 per cent operative and the electric subway, elevated street car and suburban rail services being run at 60 per cent of the pre-war scale in the much-bombed port.

"Of all the major bombing targets in western Germany we have seen Hamburg least affected in that respect," Mr. Russell said. "That, mind you, is on a relative basis, for Hamburg is also by far the larg-

est city. The principal others we have seen include Cologne, Essen, Muenster and Hamm, the latter the largest marshaling yard in Germany."

Mr. Russell is touring western Germany as head of the rail transport section of the United States strategic bombing survey. It is the task of his section to assess bomb damage of various targets in order to determine the value of air raids and to apply the lessons learned to the Japanese war.

Happily a few "repentant airmen" have begun to raise their voices. In a novel called *The Brother Vane*, the English flier who signs himself Rom Landau has recorded his shame and disgust at the bombast of air communiqués. Here is a part of his parody of one:

"First there were dozens of smaller fires all along the marshalling yards of Hunnenstadt, and then they all merged into one enormous sea of fire. And a sheet of flames rose from the devastated place three thousand feet high. And everything down below burst into flames. And there was one terrific explosion such as none of us had ever seen before, and it lit up the sky more brightly than the sun could have done, and it threw us up a further couple of thousand feet. And the smoke could be seen from five hundred miles away while we were already over England."

Like the majority of my friends I was accustomed to wincing under the lash of those R.A.F. communiqués that every night at 9 P.M. transformed the pleasant anteroom in the mess into an abode of acute self-consciousness and misery.

Even more significant than Landau is the closely reasoned approach of Flight Lieutenant V. E. R. Blunt, RAF, formerly of the British Air Staff and author of *The Use of Air Power*. Of strategic bombing he says: "The most that can be claimed for it with confidence is that it can soften the enemy's resistance to armed forces elsewhere, and harass his general war effort." This assertion he supports from his background of knowledge and air experience. He insists that the RAF has been obsessed with its inefficient attempts to win the war by itself through attacking hostile cities, to the detriment of unity of operations.

In his opening chapter Lieutenant Blunt summarizes the limita-

tions of aircraft and especially of long-range bombing. Planes, he reminds us, are militarily useful for reconnaissance and transport as well as for fire power. As fire power their object, in conjunction with friendly surface forces, is to destroy all forms of hostile fire power. Hence all bombing should be governed by the time element in relation to combined air and surface operations. In this way the extreme mobility of planes within range of their bases and the ease with which they can concentrate make them effective. Even more than that of navies and ground armies, the strategy of the air is one of bases, and is intended to culminate in the occupation of those of the enemy. Thus if your ground forces are driven back in spite of your superiority in the air, as happened several times to the British in Libya, you lose your campaign. Fortunately for the British there, in their worst days their air and surface combination, although driven back by Rommel's advance on the ground, was strong enough to keep up the game by holding Egypt. Security of your main base is the necessary foundation for successful attack. Not the bomber but the fighter plane is the dominant military type. "Undoubtedly," he writes, "the great use of air power in close support of troops and naval vessels in the present war has been a tremendous surprise . . . to the Staffs of all three [British] Services."

He quotes effectively a paper on air warfare written by Churchill in October, 1917: "All attacks on communications or bases should have their relation to the main battle." In other words, they should be governed by the same principles as ground and sea raiding in the old wars. His argument culminates in a plea for unity of effort through unity of command, "which the present clumsy [British] division of forces into three services makes very difficult."

The Use of Air Power was written in 1943. According to its principles much of the Anglo-American bombing campaign based on England and directed against Germany was a mere waste of effort.

Lieutenant Blunt confines himself to the technique of arms. Of course, a man of his caliber realizes that strategy is the servant of policy, as he several times notes. He is content, however, to show strategic bombing without reference to surface strategy to be a feeble means of making war. We shall try to show in the concluding chapter of this book that baby killing from the air is ill adapted to achieve the object of war, which is peace.

As this book goes to press in August, 1945, two military novelties in connection with strategic bombing call for comment.

First, Japan has surrendered without the home islands of that great power being invaded. As to this, however highly we may estimate the part played by strategic bombing in bringing about that surrender, we must admit that the Japanese islands have not only been bombarded but also subjected to naval blockade. Moreover, invasion was emphatically threatened, should the war have continued. In short, the surrender was not due to strategic bombing alone.

Probably far more important for the future than the surrender of an uninvaded great power is the dropping of "atomic" bombs upon Japanese cities. For nearly fifty years, beginning with Röntgen's discovery of the X ray, the work of the French physicist Becquerel on uranium, and that of the Curies on radium and radioactivity, physical scientists have been known to be on the threshold of utilizing a new and immensely powerful source of energy. That energy has now been twice put to military use.

A natural first reaction is one of horror. As the enemies of Richard Coeur de Lion, the Lion-Hearted King of England, are reported to have said when they heard that he was no longer a prisoner, so we are tempted to say: "Look out! The Devil is unchained!"

A little thought, however, should be enough to show that this horror, combined with regret over the discovery of a power capable of such fearful abuse, is both useless and intellectually sterile. God, who has given us both the moral law and our intellect and reason, is Truth and cannot contradict himself. Consequently any truth which we can discover concerning the material universe can be evil only insofar as we may make an evil use of it.

Apparently atomic energy can as yet be used in war only in the case and vile form of "area bombing," strategic bombing at its worst. Its wide range of destruction seems to make it a peculiarly indiscriminating and therefore barbarous weapon. Consequently it can have nothing to do with the direct exercise of police power, or with military occupation, both of which necessitate the use of force in its older forms. It is a weapon of mere terror, connected with conquest and the giving of laws only because that terror may persuade an enemy to surrender—as it has certainly helped to persuade the Japanese.

The results are known to have been startling. The Japanese report 60,000 killed, 100,000 wounded, and 200,000 homeless at Hiroshima; 10,000 killed, 20,000 wounded, and 90,000 homeless at Nagasaki. They add that the total of deaths is not yet known because many of the bodies are buried under collapsed buildings, and that others are dying from burns which did not at first seem serious. Further, it has been suggested that the bombed localities may have been made uninhabitable for years to come because deadly radioactivity may persist there.

Now indiscriminate terrorism, baby killing under the polite name of strategic bombing, was already playing a large part in modern war before the first atomic bomb was dropped. Thus, like all new weapons, these bombs promise to extend rather than to destroy the known pattern of conflict. Reserving the political and moral side of the matter for the last chapter, let us here glance at the technically military side.

First of all, the new explosive, although almost infinitely more powerful than any previously known, is after all a lineal descendant of previous explosives beginning with gunpowder. Like each previous improvement in this field, it will necessitate vast extensions of passive defense. It will put a still higher premium upon dispersion and concealment of targets, while necessitating still stronger direct protection of such targets as can neither be dispersed nor concealed.

How far civilian life, especially cities, will have to be remodeled to meet the new threat will depend largely upon the extent to which physical scientists may be able to add to the forms of defense just mentioned. As yet, some sort of counter to every novel military instrument has appeared. Consequently, unless the entire planet should be destroyed, the same physical science which has produced the atomic bomb will probably find some appropriate defense. The many previous prophecies of universal doom have been proved worthless, and if this possibility is real, we may be unable to do anything about it.

There will at least be a certain pause before the worst can come upon us. For the moment the secret of the bomb is known only to the British and U. S. governments together with a small group of advisers, its manufacture is still most difficult, and it has been launched only from piloted planes.

Within a few years, no doubt, these conditions will change. Other

countries will almost certainly have gained the necessary knowledge, and will have solved the problems of manufacture. Indeed, it is rumored that the Germans at the time of their surrender were ahead of us in pure science, and were held back only by manufacturing difficulties from which we did not suffer. Also the new explosive seems better adapted for use in robot bombs, probably rocket propelled, than for piloted planes. In short, the maturity of the "atomic age" may be close at hand. For the time being, however, the new power which has been hailed as the most important technical discovery since that of fire is still in its infancy.

If true, the Japanese statement of the great numbers made homeless shows that atomic, like preatomic, bombing may make buildings even more than people its victims. Among those buildings will be the irreplaceable memorials of the past. Consequently, in addition to grief for human suffering, the minority which prefers great art to Mickey Mouse will have further reason for sorrow.

XI. U. S. MILITARY POLICY: IMPERIALISM OR DEFENSE?

U. S. MILITARY policy after the present war is currently discussed in terms of bases or of the pros and cons of universal training. Both discussions, however, involve a third question which is fundamental to both. Shall we go in for imperialism, which Irving Babbitt aptly defines as the desire to domineer, or shall we be content with mastery over ourselves?

Thus the necessities of our time, which continually assail us with highly financed and mechanized propaganda, compel us resolutely to go on repeating Foch's favorite question: "*De quoi s'agit-il?*" What's it all about? What are we trying to do? Otherwise we find ourselves carried away on some muddy "wave of the future," very possibly in a direction opposite to that in which we wish to go.

Let us take first the matter of bases. As a summary of what is proposed I quote the greater part of an article published by that excellent military commentator, Hanson Baldwin, in the *New York Times* of May 22, '45:

For the United States there are, strategically, certain basic cornerstones that must fit into our concept of tomorrow's world if the needs of American military and political security are to be met. These are:

(1) The political and military integrity of the Western Hemisphere. A modern restatement of the Monroe Doctrine must be an integral part of all our diplomacy.

(2) The retention of certain outlying bases and/or the right to use other bases essential to the proper defense of the Western Hemisphere, and the further development of such bases where needed. Such areas include Newfoundland and Labrador; Greenland, perhaps Iceland; Bermuda; the West Indies bases, from the Bahamas to Trinidad; the bulge of Brazil, and, in the Pacific, the Galapagos Islands, the Hawaiian Islands (the nub of the whole Pacific base system), and Alaska and the Aleutians.

Arrangements for permission to use, under certain conditions, the facilities of the Azores, Ascension Island in the south Atlantic, and even the British Isles themselves should be made. The Panama Canal

and its outlying defenses compose, of course, an integral vital link in our whole strategic system.

(3) The establishment of a strong air-land-naval area in the Philippines. We are no longer, as we were until the Spanish-American War and to a lesser extent before this war, a free agent in the western Pacific. For good or for evil, we are now committed to the Orient. We cannot withdraw.

Not only will we be the only power capable of guaranteeing Philippine independence, but American influence is essential if any degree of stabilization in the Orient is to be achieved. Our withdrawal could only create even more of a power vacuum than now exists there—or than will exist with the defeat of Japan—and would certainly lead to convulsions and perhaps large-scale war. We no longer have any option; we are in the Orient to stay, and the Philippines must become a great bastion of American power in the East.

(4) The use of island connecting links to the Philippines and the Orient. Before this war a case could be made against the fortification of Guam, for there was considerable sentiment in this country to give the Philippines independence and withdraw from the Orient entirely. This is no longer possible. Guam and the Marianas, and perhaps the Bonin and Volcano Islands (at least Iwo) must be developed as strong naval and air bases. Okinawa and perhaps others in the Ryukyus chain that bar off the East China Sea from the Pacific must be under the American flag. The Kurile Islands, north of Japan, which shut off access to the Sea of Okhotsk and Siberian ports, offer a special case.

Because they dominate the sea approaches to Russia's Pacific ports, Russia may want some or all of them; but possibly one of these islands should be under the trusteeship of the United States. But other bases in the Pacific are also necessary to insure the integrity of our access to the Orient. The Marshalls and Carolines (and the Palau group) and Wake and Canton Islands are among the islands that must be under American trusteeship, although bases will be required on only a few of the groups. If the United States is to have major responsibility—as it has had in this war—for the defense of Australia, New Guinea, and the Netherlands Indies, it must have the right to use bases in the Admiralty Islands, in the Fijis, New Hebrides, New Guinea, East Indies and Singapore. For our sea-air access to the coast of eastern Asia and the Orient must be unimpeded or we may invite disaster at some future time.

(5) The foregoing structure of strategic security that the United

States is erecting is relatively easy to define, and relatively easy to achieve. It does not come into basic conflict with the vital requirements of any other member of the United Nations. There is the possibility of a disagreement with Russia about the Kuriles, but this problem can certainly be solved without too much difficulty. The right to use bases in the Atlantic, at Singapore and in the South Pacific can be negotiated. The problem of sovereignty over the bases that we do require, such as the Marshalls, Carolines, Marianas and Ryukyus, can be solved by international agreement; we must have absolute military control of the islands we require as bases, but there is no reason why other islands of these groups should not be subject to periodic inspection from an international organization.

But the fulfillment of the fifth requirement for American security and for a stable world order is far more difficult and will certainly lead to differences between ourselves and some of our allies. This requirement is, in effect, the strategical reason why we are fighting this war—to prevent any one nation from dominating eastern Asia and all its seacoast and to prevent any one nation from dominating Europe and all its western coast.

The protracted domination of most of the western coast of Europe or most of the eastern coast of Asia by any one or two powers (as, in this war, Germany and Japan) would not be an immediate threat to the United States, since American industry has shown that it can outbuild the world. But such domination, long-continued, would sooner or later tend to "neutralize" the strategic value of the insular positions of Great Britain and the Philippines.

The relative power position of the United States in the world—politically, economically and eventually industrially—might, in any such case, be reduced and a war between the hemispheres might even be threatened. Regardless whether such an outcome would be likely, we have placed ourselves in opposition in the past—and are likely to do so again—to attempts by any one or two powers to control the east coast of Asia or the west coast of Europe. How to accomplish this and other American strategic requirements without serious conflict is and will be the great test of American diplomacy.

In the matter of bases we are plausibly told by pens of a different sort from that of Mr. Baldwin that the Pacific islands taken from the Japanese by American sweat and blood after Pearl Harbor should remain United States possessions. Let us grant, merely for the sake of the argument, that this proposition is morally sound.

We took them and therefore we have a right to hold them. But surely we may ask: Why should we hold them?

Obviously the bases west of Hawaii are the extreme case. With reference even to them imperialist propaganda answers: We should hold them for the sake of our future military security. If we do not do so, then in any future war in the western Pacific in which we may be engaged we must laboriously reconquer what we now have.

Very well, if permanent armed strength in the western Pacific is indeed to be our policy, that will involve much more than bases. First of all, it will mean permanent garrisons for all of them, each strong enough to hold out until it can be relieved by our mobile forces. That will mean a much larger standing army than we now have. Short-service conscripts won't do for faraway places—too much of their time is lost in merely going and coming. Next we must have permanent mobile forces strong enough to act at enormous distances from their main base in the continental United States and constantly ready to do so within the time that the advanced base—say Iwo or Okinawa—can hold out by its own resources.

Were we wandering in the unreal world of an imaginary "pure strategy" wholly divorced from policy, then advanced bases might be considered useful if they could hold out long enough to give us time to prepare nearer home, but in the real world bases in the western Pacific without large garrisons and very large mobile forces would be a source not of strategic strength but of weakness. When they fell, we would feel morally compelled to retake them, just as General MacArthur rightly felt compelled to retake the Philippines. Whereas, had we not insisted on planting garrisons half the world away from ourselves but on other people's doorsteps, then perhaps those other people might have felt that they had no quarrel with us.

Or suppose that notwithstanding our lack of distant outposts the "other people" had quarreled with us after all. Suppose, for instance, a situation like that of December, '41, between the Japanese and ourselves but without American responsibility for the Philippines. In all probability our mobile force, in that case our fleet, would not have been in Pearl Harbor at all. It would have been somewhere farther to the east. Had the Japanese tried to damage that fleet they

would have had to go so much farther eastward to do it that their chances would have been less. With the U. S. fleet intact and able to operate against their communications should they attack Hawaii, they might not have thought it worth while to attack us at all. The idea back of having our fleet in Pearl Harbor was that from there it could more readily operate half the world away to the west. In other words, with American troops in the Philippines we had, in the popular phrase, "stuck out our neck." We ourselves had appreciably weakened the magnificently strong strategic position with which God has blessed us.

The reasons why the United States is strategically strong may be summed up in a single word: distance. We are a great power, and no other great power or combination of powers which we can now foresee is near enough to threaten us either with invasion or blockade. Even in the days when the British fleet was potentially stronger than ours in American waters, still the comparative weakness of both England and Canada by land gave us the latter as a sort of hostage. In other words, if the British fleet had made itself unpleasant we could easily have invaded Canada. Today the proposition is absolute. We cannot be invaded, and can be threatened only with tip-and-run raids.

This statement is a self-evident truth to anyone with the least knowledge of logistics, the science of strategic military movement. It does indeed contradict the dogmas of the late "One World" Willkie and the other "globaloney" people who are constantly telling us that distance is no longer important. But as soon as we are confronted with the real problem of moving armed forces over long distances globaloney vanishes.

As with so many strategic questions, the principle involved is simple. If we wish to lift some heavy object with a lever, we place our fulcrum as near to the object to be lifted as we can. Children quickly learn that the weight of a fat boy sitting close to the pivot of a seesaw can be overbalanced by that of a skinny playmate on the opposite side and farther from the pivot. The longer your fishing pole, the less you can lift with it.

Let us see how this works out in military practice. In December, '44, when von Rundstedt launched his last offensive in the Ardennes, the United States, with more than 11,000,000 in its armed forces, had been able to put less than fifty divisions—say 1,000,000

combat troops including nondivisional combat units—in the principal theater of operations. Modern conditions, while facilitating movement close to a well-equipped base, fetter long-distance movement by tying the combat forces more and more closely to their bases and by making the latter hard to move. The weight of ammunition shot off by the average combat soldier in a day's fighting has increased fantastically. Motorized equipment necessitates an army of maintenance and repair men merely to keep it going, in addition to its rivers of liquid fuel.

In "The Lesson of Logistics," a well-informed article in the January 31, '44, number of the newsletter *Human Events*, Frank C. Hanighen says:

The complicated armies of today are too intricately mechanized to enjoy certain advantages of ancient armies, or even of Washington's Continentals. This point is vividly made in a study of communications, *Lifelines of Victory*, by Squadron Leader Murray Harris of the Royal Air Force (Putnams, 1942). Harris shows how the automobile is actually "a factor of immobility" in modern warfare. "Nowadays," he says, "motorized equipment can go only so far as the nearest fuel supply and servicing station will permit—certainly not more than the hundred miles or so from a well-equipped and constantly replenished base. So here we find that outstanding paradox: the immobilizing of armies by use of the automobile." The same holds true for the air force. Airplanes need fuel dumps, repair shops and a highly organized base.

At this point we should note that the word "base" covers a multitude of functions. In a sense it includes all the places from which the men and materials used originally come. In this sense the base of any American armed effort is the continental United States plus the sources of the very few militarily desirable materials which we do not possess. Castex notes that in 1918, thanks to sea power, the communications of the armies fighting the Germans in France reached clear around the world, and what he says is true today on an even greater scale. Often the term "main base" is used in the somewhat narrower sense of the localities at which the men and materials are assembled for transport to an intermediate base nearer the theater of operations. How many intermediate bases will be necessary or desirable for storage and shipment between the

main base and the advanced bases which deal with the combat units will depend upon circumstances. The advanced base is a little like the retail store which sells an article of commerce to the ultimate consumer. The intermediate bases are like commercial wholesalers or middlemen, while the main base in the narrower sense is like the original shipping point and in the wider sense is the original factory with its sources of labor and material.

Mr. Hanighen goes on:

Now this modern system of supply and communications is a voracious consumer of manpower. Both ground and air forces require enormous staffs to service, supply and repair their tanks, trucks, planes and other kinds of motor equipment. Also, the farther the theater of operations is from the industrialized home base, the greater is the number of men needed to man the supply and communications lines. Stevedore battalions, numerous railway and road construction units, engineers to build air fields, military police, military government personnel, postal units, depot personnel, sanitation and medical units, etc., etc.—all swell the armies behind the combat armies.

Military experts illustrate this problem with striking figures. If we were fighting in New Jersey, they say, we would have 300 divisions. But, with the same manpower, fighting on the Rhine alone (eliminating the Pacific and other theaters), the most we could put in action would be 100 divisions. If the focal point were the Apennines, the force would be 80 divisions; at Manila, 40; and in India, 10.

The case of India, while an extreme example, underscores this problem. For, at the present time, our forces in India approach a half million men. Yet these men can supply only two combat regiments. It is estimated that the cost of the whole Chinese-Burma-India theater, with two combat regiments, runs as high as supporting 10 infantry divisions in Italy.

In other words, combat manpower decreases in geometrical proportion to the distance from the home base. Even in "one world," distance depletes manpower.

Naturally, this rule applies equally to the enemy. It is obvious that the Germans, by withdrawing from Russia and most of the Mediterranean theater, have saved the manpower which enabled Von Rundstedt to balance our troops on the western front. These troops may not be of the first order, since they have been reassembled from

supply and communications units; but they are militarily serviceable.

Conversely, if the Germans had successfully invaded the continental United States, they would have been able to land only 60 divisions in New Jersey (provided we offered no naval opposition), where they would have met 300 divisions of the U. S. Army. The Japanese, because of longer lifelines, would have landed even fewer on the Pacific Coast.

In view of this picture of combat ground forces, and since air-power (whether robot or under direct human control) can attack but cannot occupy, one is justified in coming to Murray Harris' conclusion: "The one outstanding certainty in the maze of uncertainty of this war appears in a clear light to the student of communications—it is that America will never be invaded."

To put this last statement more fully, one might say: America will never be invaded in force and as a rational operation of war in any future which we can now foresee. Of course, people sometimes act against their own interest through miscalculation. Thus after Pearl Harbor it might have been physically possible for the Japanese to land troops on the Pacific coast of North America—had they been fools enough to try it. Early in '42 one of the most brilliant of living American Staff officers said to the writer that, while of course such a military godsend could not be expected, it would be the most fortunate possible thing for us if the little yellow men committed such a folly. Japanese shipping would be so rapidly worn down in trying to support an army nearly five thousand sea miles from Japan proper that the United States would win its war more quickly and easily than under any other circumstances.

Probably no educated soldier or man-of-warsman, if speaking frankly and in private, would say that any base in the Pacific west of Hawaii could help to keep war away from the continental United States except at a continuing cost far greater than that necessary to insure our safety by merely holding the Hawaiian Islands and the Panama Canal Zone. Thus if we are permanently to hold the Marshalls, the Carolines, the Philippines, Iwo Jima, Okinawa, etc., etc., it must be for some purpose wholly alien to our own defense and security. Thus the only rational object of our keeping them will be either to defend someone else or to promote some imperialistic policy concealed from the American people.

It is often said that we must defend Australia, but surely if the

Australians will not even keep up the bases which our fleet would need in order to defend them, then as a people they are hardly worth defending. Sound foreign policies are two-way streets. If it is to be understood that we will help defend Australia, then what will the Australians—within the limits of their power—do for us?

Mr. Baldwin's able summary of the unsound arguments of our internationalists tells us that we must now stabilize the Far East. Very well, to what extent must we do so and why? Since we cannot be compelled, there must be some reason why we might consider it desirable. At this point the internationalist, if he thinks he can get away with it without being laughed at, puts his finger on his lips and says, "Shush, speak softly. We must do so for the sake of Chinese trade." Certainly we prefer an open to a closed door in China, but what are the Chinese themselves going to do to help keep the door open? If we are to keep expensive armed forces sitting indefinitely on the doorsteps of Pacific Siberia and Japan for the sake of China, let us count the cost and have a good look at the different sorts of ideal and material benefits—if any—which we can hope for in return. The present writer is certainly far from being an enemy to the Chinese, but after all, there are many other peoples in the world who are much more like ourselves and with whom we may be expected to have more sympathy. On the material side, nearly all Chinese are too near starvation to buy appreciable amounts of American products, even if they insisted on having those products instead of the cheaper goods made by cheaper labor in their own country. Moreover, with logistics in mind we may be certain that the cost of protecting the Chinese will come high. Thus there is good reason for our internationalists to speak softly. If too many Americans understood what they mean they would not be listened to. Either they would be considered foolish dreamers masquerading as lofty idealists or they would be shown up as conspirators hoping to fill their pockets at the expense of their fellow citizens.

Insofar as those who advocate Asiatic bases for the United States are at bottom imperialists, it is not necessary here either to claim that imperialism is always 100 per cent wicked or that existing empires should be abolished. For instance, without the direct and indirect profits of empire many millions of the English would have to starve or migrate, and it would be strange for the United States

after fighting alongside the British all over the world to insist upon either alternative. Incidentally, mass migration might be wise, but never mind that now. For the moment it suffices to show that the profits of Asiatic imperialism are declining and that the United States is ill adapted to compete for what will be left of them. The days when English officials could walk among heaps of precious stuff in India and be astonished at their own moderation in carrying off so little of it are long past. One Asiatic people, the Japanese, has become a great power, and a great, long-term effort will have to be made against them if they are to be reduced permanently below that status. The Hindu millionaires who back Gandhi, while probably not anxious for their own despoilment and possible extermination at the hands of the Indian fighting races—which they might expect if the British really left—are nevertheless determined upon keeping for themselves a larger share of the tribute which still flows from India to England. Similarly, after the present war the Chinese will probably try to retain an increasing part of the surplus values created by Chinese labor. A chief talking point of communist propaganda in Asia has been opposition to western imperialists. Accordingly, for the United States to go in for coercing Asiatic peoples in the hope of profit would be, in the stock-market phrase, "buying in on a falling market." That we would be further handicapped in the attempt to use armed force for profits from masses of poverty-stricken Asiatics is evident both from the strength of our tradition of self-government and from the enormous difference between our scale of living and theirs.

Even if the prospects of our making money by means of Far Eastern bases were better than they are, why go looking for trouble by occupying such bases? Why provoke people with whom we would otherwise have no quarrel? Sound foreign policies are not only two-way streets in connection with actual give and take—as we saw in connection with Australia. They must also take into account the way things look to other peoples. No matter how pure our motives might be in setting up a chain of Asiatic Gibaltars, no sensible man when really looking for peace and security goes around waving red flags under the noses of bulls. The Soviet Union is a great power with which we have no territorial reason to quarrel. Why then should we wish to go into the Kurile Islands on her doorstep and sit there with a gun? In civil life such conduct might seem a little

strange to the householder in question. Even though the poverty of the average Chinaman drastically limits any hope for profits in trading with him, still China is potentially a great power. What could we expect her to think if we settled down permanently and armed to the teeth in the Philippines and the Ryukyus 6,000 miles from San Francisco and a few hundred miles from her own coast?

Turning from bases to conscription, we find that the arguments in its favor are made by more or less the same people and that those arguments are, if anything, even worse. At least a base is a definite military asset. The policy which it exists to serve may or may not be worth its cost, but at any rate if you fortify and garrison it strongly enough and if you increase your mobile forces sufficiently to relieve and support it, then you are militarily stronger in its neighborhood than you were before. On the contrary, the proposal to train all young men for a year is a monstrosity. Since its possible military benefits are so small, its possibilities so ugly, and the patriotism of the considerable number of its advocates known to the writer so high, we can only suppose the advocates have insufficiently considered the effects of their proposed policy.

The proposal is that all physically fit American males should be trained in arms for a year. Universal compulsory training for girls has also been suggested, but that is a side issue. The alleged benefits are greater military security, a higher standard of physical fitness, and an improved sense of civic solidarity and responsibility.

In the name of the Prophet, figs! Military training and maneuvers, especially in good weather, are indeed pleasant to many, perhaps to most, healthy young men, but an army is not a campfire club, a physical-culture stunt, a rehabilitation center for those who come to it as physical defectives, or a school of applied civics. It exists to teach its pupils how to kill and to endure the risk of being killed. These are grim purposes. In any great emergency all must do their part. But to say that all must be trained in arms is like saying that all must be trained to be policemen. Of course, if anything so drastic is necessary, that is another matter, but unless it can be shown to be necessary it is desirable only in the eyes of those who love compulsion and regimentation for their own sakes.

Many readers, should they agree with the real opinion unanimously held by the appreciable number of experts known to the

present writer to the effect that the United States cannot be invaded, will be tempted to throw out the universal-training idea as unnecessary foolishness. However, since a certain amount of over-insurance against the risks of invasion or other military disaster is justified if one can afford it, let us consider what urgently desirable military tasks might be furthered by universal compulsion. In short, where could the United States effectively use the mass army which universal training would give us?

Provided that naval control, transport shipping, and points of debarkation existed, it would enable us to put a mass army into western Europe more quickly than we could do so without it. And that is all.

Now let us examine the number of cases to which it would not apply. Except for civil wars, which may God forbid as the worst of calamities, future armed conflicts in which United States armed forces would be engaged would be one out of three sorts. Either those forces would be commanded by some world government, perhaps called an "international security association," or by ourselves in a coalition war fought by us in combination with powerful allies, or by ourselves without powerful allies.

We need not here debate how much chance there is of an international organization with armed forces of its own or with the real power necessary to order national forces about. Suffice it here that for no sensible purpose of such an organization could a United States mass army be an appropriate instrument. The whole point of a security association would be that it could head off armed conflict on a vast scale by using force on a smaller scale whenever "aggression" might be threatened. In turn, the whole point of a mass army is that its many millions of trained men go back to civil life as reservists and are mobilized when needed. You get numbers with a certain amount of training, but you have to take so many men from civil life that a general mobilization is a social and therefore a political crisis in itself. Of course, if everyone was agreed on what might constitute a threat of aggression, then each crisis would be met. Experience of the real world shows that the chances of such an agreement are small. Had we possessed a mass army in '14 or '39 it would not have been at the disposal of those who afterward became our allies. Today's internationalists tell us that their object is to prevent the existence of a world full of mass armies ready to spring at each

other's throats. If there were an appreciable minority in the forty-eight states which doubted the genuineness of the threat constituted by some future aggressor, and if it could reasonably be believed that he could be put down by the use of regular troops without turning our civil life upside down by a general mobilization of reservists, preventive military action would be politically less difficult to take.

The single instance of French conduct when Germany reoccupied the Rhineland in '36 may be enough to show what would happen. The French had a fully organized and equipped mass army, whereas German military training had been gravely handicapped until the previous year. Consequently, however brilliant the German military performance in '36 might have been, in case of war French success was practically certain. Also, the threat to the French involved in the German action was infinitely greater than any threat which could be offered to the United States. Here was Germany right on their border, her population outnumbering theirs nearly two to one, and her armed strength growing by leaps and bounds. Nevertheless, when the French staff told its politicians that a general mobilization would be necessary, those politicians refused, so that the Germans remilitarized the Rhineland by default. Had the French not been wholly dependent upon their clumsy mass army, had they also possessed the comparatively small striking force of regular troops for which De Gaulle had so eloquently pleaded, the whole complexion of the affair would have been different. Turning again to a consideration of the United States, we cannot ignore the fact that the oceans, although more rapidly crossed than before, have not been abolished. In 1940, without a mass army, England successfully defended herself behind a strip of salt water which at Dover is only about twenty miles wide.

Next let us suppose a case in which we were fighting alone or at least without the help of another great power. Assuming a respectable U. S. navy and an equally respectable army air force, for a long time after the beginning of such a conflict no serious operation of any sort of war yet known would require or even permit our use of a mass army. Nor could such an army be quickly used by any conceivable coalition against us. Suppose—just to show the absurdity of the thing—the Red Army allied to the British Navy. Throw in the world's other navies for good luck. Does anyone suppose that those navies could ferry any considerable part of the Red

Army to North America within the time that it would take us to train all the available manpower we possessed? Remember, we are discussing an ideally desperate case far beyond the furthest point of reasonable supposition.

Or, putting the hypothesis of a noncoalition national war by us against a foreign power or group of powers the other way about, suppose that we were seeking to operate on some land far distant from our shores. If no very great effort by ground forces were required, then no conscript mass would be needed. We could simply call for volunteers. If, on the other hand, a first-rate military effort were required, that would mean that we faced formidable opposition. That opposition would include a certain amount, probably a considerable amount, of sea and air power. In such a case, before we could land in force on the opposite side either of the Atlantic or the Pacific we would have to go through the long process of gaining command over the ocean in question and the air above it clear across to its farther shores. Again there would be plenty of time to train our millions of potential ground troops.

Taking the third case of our entrance into a coalition war, we have indeed twice done so, have twice organized mass armies and have landed in great force east of the Atlantic. As these words are written in August, '45, it is not yet publicly known how far we had planned to increase the number of our troops already engaged against Japan. Even if the final figure should prove greater than the number which could have been raised for the Japanese theater by volunteering had we had no European war on our hands, still we may be certain that most of our drafted men would never have seen combat in the Pacific theater. A United Press release from Washington, printed in the *New York Herald Tribune* of March 24, confirmed the obvious fact that ". . . the Pacific war will call for a larger proportion of service troops. Some returning units will be converted to specialties required in expanding and strengthening Pacific supply lines." For those of our soldiers who would have had no chance actually to fight against the Nipponese, any combat training which they may have had would have been wasted as far as the Pacific theater is concerned.

As to Europe, both the coalition of 1918 and that of '45 would doubtless have won sooner had our mass army been previously trained in peace. This would certainly have saved us money and is,

as we have seen, the one genuine military argument in favor of the proposal. Even here, however, the nationalistically minded might argue that although the coalition of which we finally became a part would have won sooner, still the proportion of American blood lost in gaining the victory would have been much higher had we engaged large forces earlier in the war. Indeed, that proportion might have been so much higher as to increase the absolute number of American lives lost.

Still another misleading argument in favor of universal training is that it would relieve us of the necessity for a large standing army. Actually we would probably have to increase our number of professional officers and enlisted men in order to train the annual class of recruits. Each year about 1,200,000 of our young men reach military age, and of these about two-thirds, say 800,000, are considered physically fit enough to be trained either for combat or for limited service. As a training cadre for this annual class we would have to have at least 80,000 officers and professional enlisted men, probably more. Eighty-five thousand would be a conservative guess. If physical rehabilitation of the unfit were attempted on any scale—and, remember, physical betterment is constantly urged as one of the benefits of the proposed scheme—then of course the training cadre would be higher both proportionally and absolutely, probably much higher.

Moreover, this training cadre would be fully occupied with the vast flood of recruits. The other urgent duties now performed by the regular army—garrisoning of distant possessions, relief of sufferers from great calamities like earthquakes, fires, and floods, readiness for emergency police work, higher military studies which absorb the time of many officers, a small expeditionary force ready for use without disturbing civil life, in short, the many military functions for which short-term conscripts are obviously unsuitable—all these duties would still have to be performed. Indeed, if we go in for many distant bases our present need for garrisons will vastly increase. The experience of all conscript powers has been that volunteers alone are suitable for distant service. The training of the annual class is much better and more economically done fairly near their homes. Accordingly there is no reason to believe that universal training would allow us to reduce the peacetime number of our regulars. With reference to distant service, a Paris item in the *New*

York Times of May 31, 1945, says that for the Japanese war France, the nation with the longest continuous experience of compulsory service, ". . . is organizing an expeditionary force composed of volunteers."

Nor have any of the American conscription bills anything to do either with the present war or with the occupation of German or Japanese territory. Those tasks will be carried on under the present draft law as long as Congress may see fit to extend it. Indeed, the various universal training bills would not provide a man for service at any time. They are concerned solely with compelling our young men to accept training in arms even when no national emergency exists.

Another claim sometimes made for peacetime conscription, i.e., that it would insure peace, is so wide of the mark that it deserves to be called impertinent. Modern, universal compulsory service, including liability for service in distant regions, was invented by the First French Republic to strengthen the Revolutionary-Napoleonic crusade for the domination of all Europe. It has accompanied and extended all the subsequent mass massacres of our democratic era. Universal peacetime training originated in Prussia after Napoleon's fall, and was the instrument of her wars of conquest—which no historian, I believe, has ever dignified with the name of a crusade. There seems not to have been a single occasion when either universal service or universal training ever averted a threatened war. They have merely made the wars bigger.

Still another fallacious argument often trotted out in favor of universal training is the rapidity of the "new" warfare. We have already seen in connection with logistics that in some respects distance is militarily more important than ever, and that geography compels us to a primarily maritime strategy. We should now note that the "new" warfare has in some respects increased the defensive strength of nations protected by oceans, while decreasing the military value of the conscript mass.

A chief strategic function of the plane is as a coast-defense gun of enormous range. It extends far out into the sea the zone in which land-based weapons should normally dominate ship-based ones. Although the technical superiority of the land plane over the carrier plane has been exaggerated by injudicious writers, nevertheless that

superiority exists. Accordingly, even without reference to our fleet, our land-based defense against overseas invasion will begin farther from our shores than ever before.

If anyone says that not ship-borne invasion but molestation from the air, either by air-borne troops, bombing planes, or robot bombs, is to be feared, then surely the answer is that a conscript mass has little to do with repelling such attacks. In any future which we can now foresee, parachutists and other air-landed troops operating in hostile country far from friendly bases will be comparatively few and lightly armed. The feats of our air transport command between India and China have been accomplished between friendly terminals. Consequently the appropriate forces to deal with air-borne attack by ground troops—aside from defense in the air, with which most conscripts will have nothing to do—will be highly mechanized and extremely mobile ground forces, which will not need to be very large. In defending cities and other ground targets against bombing from planes or by robots the only ground troops to see action will be antiaircraft gunners. The other work on the ground will be that of air wardens, emergency fire brigades, etc., which is not even remotely connected with military training. From finding and training the necessary crews for antiaircraft batteries to putting all our young men into uniform is a far cry. The sight of millions of conscripts impotently shooting off their infantry weapons at bombers or flying robots would not be impressive.

Indeed, the tendency of all forms of mechanized or "scientific" warfare is to reduce the military value of the conscript mass. Weapon power rather than manpower tends to predominate. Although from 1793 to 1914 it was an axiom that God was on the side of the big battalions, the eastern front of 1914-17 reversed the tendency. Superior German industrial and military technique was able to defeat and finally to disintegrate the many millions of ill-armed Russians. The valor of the Czar's armies could do nothing against the intelligently directed storm of German shells. Nations in arms were already becoming nations in arsenals. In the present war with still more complicated weapons, military quality has further increased its importance relative to mere quantity. The victory of the RAF, although outnumbered three to one by the *Luftwaffe* in the air over England in 1940, is a conspicuous example, enshrined in

Churchill's memorial words: "Never have so many owed so much to so few." Even in the case most favorable to mere numbers, i.e., that of campaigns between states with land frontiers, the tendency toward elite troops has been marked. Late in '42 one of the American officers best informed concerning the German Army told the writer that out of the 300-odd divisions of that army its 65 elite divisions of different sorts had done most of its fighting. Similarly the Red Army, in spite of its enormous reserves of manpower, found it desirable to create a military elite under the name of "guards divisions" with double pay and a higher status than ordinary troops. Although the conscript mass is still indispensable for secondary tasks, the tendency in military technique, as in European politics since 1918, has been toward the formation of powerful elites.

Finally, let us suppose that some advocate of universal training were to admit—in private, of course—all the foregoing points. Such a man might say: "Naturally I agree that most of the arguments publicly made by my friends are feeble, particularly the one about compulsory peacetime soldiering being such a wonderful thing for our young men. It is indeed true that the proposal has little to do with our security because geography compels us to a national strategy which is first of all maritime. A second isthmian canal across Nicaragua would of course strengthen us more than a hundred Plattsburgs. One must also admit that the advocacy of a peacetime mass army makes nonsense both of the arguments of the war party in America before Pearl Harbor and of the present talk about international security, and I concede the technical military superiority of elite troops.

"Nevertheless," such a man might continue, "here are the facts. The United States is now so industrialized that it must have large foreign markets even to maintain its standard of living, let alone raising it, as most of our people ardently desire. American high wages make it impossible to compete against goods produced by much cheaper labor except in markets dominated by American arms. Thus in order to prosper we must forcibly control other peoples. In other words, we must have an empire. Our 'do-gooders' and would-be reformers of other peoples' private lives will eagerly camouflage our imperialism under the name of philanthropy.

"As one of the instruments of our future imperialism," so this frank conscriptionist might conclude, "of course conscription will

produce a not wholly desirable military instrument. At the same time, it is the most powerful land instrument politically possible to us. We can't have the fair-sized standing army which would be a more efficient base on which to build, because our people dislike the idea. We may, on the contrary, be able to sell them the conscript denial of liberty on the plea that it is 'democratic' because it is in line with the 'all men are or ought to be equal' idea. The habit of compulsory service will in time make our people more war minded. In war it will at least give us a start toward furnishing a powerful striking force, and it will make it politically easier to regulate war-time wages of labor. In peace it will take a lot of young men off the labor market, which will help to keep wages up."

Except one, all the imaginary statements just quoted are either wholly or at least partly true. The one exception is the assertion about the necessity for large foreign markets forcibly controlled. That necessity may or may not exist, but at any rate is not a proved fact. It has been set down here because it can be sincerely believed and is in fact believed by not a few sensible people.

The writer, for one, believes no such thing. Even though imperialism be the path of least resistance for a highly industrialized society, it is not the only path. Given the difference between American wages and prices and those of other countries, it is at least as likely that imperialism would be a losing rather than a winning game. The wealth which we as a nation have already achieved should argue in favor of a moderate nationalism, neither isolated from the rest of mankind nor intent upon domineering over other peoples.

A capital point in favor of economic nationalism, protected by a considerable tariff and by restricted immigration, is that it requires no conquest of other peoples and no policy of threatening them if they do not choose to buy from us. Consequently, among other advantages, nationalism demands no top-heavy army raised by peacetime compulsory training. By our not seeking power over foreign peoples our young men can retain power over themselves. Even as a cold-blooded business proposition, it might be better to cling to our own liberties rather than to throw them away in the hope of destroying those of others.

Everyone knows that today many people either love compulsion for its own sake or at least do not much dislike it. Some are happiest when domineering over multitudes. Many millions of improvident

but legally free citizens are eager to exchange their freedom for the doubtful security of depending on a powerful master called the state or the government. Many of us have met individuals so jealous of the rich that they yearn for commissars with powers over life and death such as no millionaire ever had. The word "liberalism," which used to indicate more liberties, is now befouled into meaning more coercion. The enormous Soviet Union exists to deny the normal and immemorial right of ownership. Almost everywhere large political parties believe in some sort of socialistic state "planning" in spite of the notorious lack of creative urge among state employees. Steadily increasing regimentation is intellectually fashionable.

Happily we can stand against this muddy current if we choose—particularly as regards compulsory training in arms.

XII. MUST WE HAVE WORLD WAR III?

THE object of war is peace. Why then do our victories seem so unlikely to achieve it?

One answer which might suggest itself is that too many cure-alls are being proposed. There is an excellent story of a wife who turned furiously on her husband just after they had left a dinner party together, saying: "I never was so humiliated in my life! You were the only one at the table that didn't have an original plan for an enduring and everlasting peace." On the other hand, this childish mood is sobered by the approaching shadow of still another all too possible Armageddon. This chapter will confine itself chiefly to diagnosing the disease, adding certain historical notes on the successful treatment of similar sicknesses by our cultural ancestors.

The disease has indeed reached an acute stage, a new depth of disintegration. In Germany after the armistice of 1918 there was at least a government which was accepted both by the victors and by the Germans themselves as responsible for that country. With the approval of the Allies, including the United States, that government was empowered to suppress such revolts as occurred. Thus the traditional pattern of war as a contest between two sets of responsible authorities still held. Notwithstanding the closely intertwined revolutions and great wars which have now continued for more than five generations, after every upheaval there has promptly appeared a set of men able and willing to govern.

Today there are no Germans who could sign a treaty of peace. In May, 1945, the victors compelled the unconditional surrender of the German armed forces, and proposed to try many if not most of the surviving German leaders and officials as criminals. In the liberated countries of Europe, those responsible administrators who considered it their duty to their own peoples to conduct affairs during the German occupation are being killed or imprisoned as "collaborators." No one seems to have a clear idea of what the effect of defeat upon the Japanese will be. The actions of the Soviet Union have often seemed to leave the English-speaking powers only the choice

between humiliation and war. In this chaotic situation the effect of local and temporary incidents is mingled with debate upon elementary and fundamental ideas of right.

Let us consider first the immediate case of Germany. The frontiers of civilization were advanced to the Rhine and Danube two thousand years ago, and for about half that time nearly all the various German-speaking peoples have been members of Christendom. Irrespective of its imperfect political union through the genius of Bismarck within the memory of very old people still living, German culture at its best has been a precious possession of us all. The world would be poorer, for instance, without Mozart and Goethe. It is already the poorer for losing medieval Nuremburg and the Romanesque churches of Hildesheim and Cologne. Americans of Germanic blood are among the best citizens of the Republic. In our armed forces names like Eisenhower, Nimitz, Spaatz, and Wedemeyer leap to the eye. Why then the ferocity of the present divorce between the Germans and the West?

The Prussian who has gone far in imposing his patterns of thought and action upon the other Germanies is capable of high self-devotion. He has a sense of duty seldom equaled elsewhere. Unhappily for himself and the world, his virtues are at the service of a narrow, tribal patriotism. He considers only the interests of Prussianized Germany without much trace of what the Declaration of Independence called "a decent respect for the opinion of mankind." Lifting the matter from the Jeffersonian to the religious plane, the Prussian is an extreme case of the prevalent modern disease of substituting one's country for God.

Other peoples are indeed nationalistic, but the Prussian is crudely so. An Englishman accused of hypocrisy might reply that hypocrisy is at least the homage that vice pays to virtue. He might also and justly say that in the days of his greatest power his policy on the whole was moderate. The Frenchman has a passion for general ideas which have nothing to do with frontiers. The American constantly tries to convince others by discussion with anyone who will talk with him. Even the ancient Romans who blotted out Carthage and Jerusalem owed their empire almost as much to policy as to arms. They conquered the world, it is often said, by coming to the aid of their allies. They had a gift for persuasion as well as for compulsion, so that conquered peoples soon consented to their rule.

Alone among wholly European groups, the Prussian has sought to conquer by naked force, contemptuous of persuasion and habitually indifferent to general ideas.

Whether or not his vision of himself as a member of a chosen people owes something to Protestant concentration upon the Jewish Old Testament, certainly his idea of his own superiority makes him a willing victim of that universal modern abomination—propaganda.

Turning now to the English and ourselves, we must see that we have gone along with the Germans in waging a sort of war unlikely to achieve any real peace. As we saw in Chapter II, in 1918 the memory of extreme efforts and sacrifices, above all the fearful popular passions which no elective government could curb, prevented either a peace of reconciliation or one of destruction. Except for the killing in battle, which has sharply declined, all these things have returned to the English-speaking countries. In the last war the English lost about 900,000 soldiers killed and dead of wounds, the United States more than 100,000, a total of more than 1,000,000 for the two. In the present war the combined battle deaths of the three fighting services of the British Empire were announced as nearly 300,000 up to December 1, 1944. The American Army and Navy deaths in action stood at nearly 200,000 on May 1, '45, making a grand total for the two powers of less than half that for the last war.

On the other hand, we have allowed ourselves both to copy and to surpass the Germans in extending far beyond the scale of the last war the air bombing of hostile cities. In Chapter XI we saw that the ability of "strategic bombing" to achieve victory can be gravely doubted. We now note its effect upon the settlement which must follow the war.

If a final reconciliation with our enemy or former enemy be our object, few methods less calculated to obtain that object could be imagined. The point has nothing to do with what Germans or Japanese deserve at our hands; it is entirely a question of what we ourselves are trying to do. Of course, airmen bombing from a great height are comparatively impersonal agents; unfortunately, the reaction to their doings is often highly personal. In vain does Major Seversky write: "... the kind of large-scale demolition which would be looked upon as horrifying vandalism when undertaken by soldiers on the ground can be passed off as a technical prepara-

tion or 'softening' when carried out by aerial bombing." Traditionally the English are an unvengeful people, but neither the Germans nor the Japanese have seen the matter in that light. The *New York Herald Tribune* of April 20, 1945, carried as a headline: "Captive Airmen Ran Gauntlet of Nazi Bayonets." The disgusting details of the torture inflicted on the helpless prisoners we gladly omit. For us the significant thing is that when a Canadian flier asked a German marine why these things were done, the latter answered, "Your fliers bombed our wives and children." On May 16 the same paper quoted an American airman's account either of the same or a similar incident. This article said: "When the prisoners finally reached their camp . . . the camp officers issued an official statement attributing the brutality of the guards to a [German] Captain's desire for revenge . . . his family had been destroyed in an air raid, and he was out to get revenge on all Allied Air Corps personnel." Again on June 2, 1945, the *Herald Tribune* said in a headline: "Six Germans Tell How U. S. Flier Was Murdered." The story is that when the American parachuted from a crippled bomber, "howling-mad civilians" rushed toward him. Someone wounded him in the head with a pistol shot, and the mob then battered him to death. We may hope that under similar circumstances Americans would not follow suit, but in the country that invented lynching we cannot be certain until the experiment shall have been tried.

Another scrap of evidence both as to the German attitude toward Allied air bombing and toward their own national propaganda was printed in the *New York Times* of May 16, '45, under the heading: "German Girl Vows Vengeance on U. S." The subject was a seventeen-year-old *Fraulein* in a town near Cologne. She wrote to her lover:

"The flames are licking up to the Rhine. My Cologne, Peter! Isn't there any justice any more to make these culprits pay for such a deed? Our hearts cry out for reprisal."

Maria's impassive face showed some emotion when an interrogator mentioned Cologne while she was being questioned. "It's horrible," she said, "to think of our beautiful German cities being bombed."

"Wasn't the bombing of London also horrible?" she was asked.

"But the German cities are our homes," Maria replied, "and besides only military objectives in London were bombed."

In the face of this sort of thing it seems certain that the "re-education" of the Germans—even supposing the Russians, British, and ourselves united as to how it should be done and resolved to keep it up indefinitely—will certainly be a long business.

As far as the Japanese are concerned, our bombing of their cities, their subsequent execution of some of our captive airmen, and our threat of reprisals against anyone responsible for those executions cannot be said to have decreased the hatred between the two peoples.

At the moment, however, anyone who speaks publicly of reconciliation can hardly help feeling both timid and inexcusably rash. Everywhere the desire for vengeance is so strong and so natural. Only by making an effort toward what may seem inhuman intellectual detachment can the historian feebly bleat out that, after all, nearly all wars known to human record have ended at last in some sort of appeasement.

Suppose, on the other hand, that we take the opposite line. Suppose we say: For the time being, at least, kindness would be wasted on the Germans. The only way to do anything with them is to be harsh and cruel—in other words, to inflict on them at least a measure of further destruction. Now, that may well be true. We certainly cannot say positively that it is untrue. Nevertheless, as soon as we say that our object is destruction, we entangle ourselves in a set of difficulties as baffling as those of appeasement. Our real object is to destroy an idea, i.e., the desire of the Germans to attack others plus the hope of attacking successfully. The present helplessness of eighty million people will not last indefinitely. Even at the moment our power over them doubtfully depends on the degree of co-operation which we can achieve with Moscow. What sort of destruction can we usefully inflict upon them while our power lasts?

The only absolutely sure means of destroying the possibility of future German aggression would be to kill all or nearly all the Germans. According to the Fifteenth Chapter of the First Book of Samuel in the Old Testament the Jews did just that to a tribe called the Amalekites, and similar incidents, usually on a comparatively small scale, have been recorded in wars with savages. We, however,

cannot do this to the Germans. It would be morally impossible for any nation once Christian to decree such a policy; what is left of our traditional morals would forbid it. Even if the policy were decreed, it would be physically impossible to find agents who would consent to kill many millions of defenseless people. English and American soldiers would disobey such orders if given. When the First French Republic ordered the killing of captured sailors and certain categories of captured soldiers, the officers and men of the French armed forces, to their honor, refused. One French army accompanied the sending off of a convoy of prisoners to the rear with sarcastic shouts of "Let the Convention [i.e., the politicians] eat them if they like." Even the Bolsheviks in the high tide of their earlier massacres were said to have been forced to fall back upon hiring Chinese executioners to do some of their dirty work for them.

Next in the scale of destruction is the proposal to castrate or sterilize the conquered. The *New York Herald Tribune* of May 15, '45, attributed both this and the wholesale-killing idea to certain American soldiers "liberated from German internment camps and indescribable prisons less than a month ago."

The men were so stunned at the happy shift it was hard for them to believe it. Until a month ago, they said, their daily life had been one of torment from German prison guards, supported, except for weekly Red Cross food parcels, by a starvation diet.

From the Nazi-style of total war, they said, they have developed a total hatred of the German people. What to do with Germany would be no problem to the former prisoners. When asked for their ideas on the subject, the men fired back their answers, cheerfully and without emotion. Removing the combat-area adjectives their answers ran:

"Kill every one of them," one said.

"Castrate the men," a second said, "and sterilize all the women."

"Give them all arsenic," came a third voice.

"No," said a fourth man, recalling the vermin-filled sleeping quarters, the body lice, the prison fare and the harassing guards, "let them live in their own prisoner-of-war camps. That'll do it."

Friends of the writer report that certain American females have been heard to advocate wholesale mutilation. One is reminded of the superlative ferocity recorded of Red Indian squaws when pris-

oner torturings began. Kipling's "Female of the Species" contains the following couplet:

When Jesuit fathers preached the word to Hurons and Choctaws,
They prayed to be delivered from the vengeance of the squaws.

If the operation was not universally performed on all German males, sterilizing a sufficient number of German women would of course be a more certain means of reducing the future number of Germans than the mutilation of many German men. Mutilation is certainly less drastic than killing. Moreover, sterilization of the "unfit" is a "progressive" or at any rate novel moral idea recently enacted into law in certain American states and in National Socialist Germany itself. Still, it seems certain such a policy, like that of wholesale killing, could not be enforced on a great scale even if ordered. It is mentioned here only because it is significant of the way the world seems to be going that such a thing is even discussed.

Another means of destroying much of the future of the German people without either wholesale killing or mutilation is the Soviet proposal to work large numbers of German men in convict gangs for many years to repair and rebuild the damage caused by the present war. In support of this idea certain Soviet citizens have been quoted as saying that prolonged and very hard work is good for people. Under convict conditions, on the other hand, it seldom seems to produce a marked uplifting effect. A somewhat more convincing argument in favor of such convict gangs is that under national socialism the Germans themselves used this method or something very like it in order to reduce the future strength of neighboring nations. It has been charged that French prisoners of war in Germany were intentionally infected with various diseases. What truth, if any, there may be in these charges seems impossible to determine. Be that as it may, should Germans who have not been individually convicted of any crime be sent into prolonged forced labor service, then we should at least call such compulsion by its name, which is slavery. Now, slavery is morally less extreme than mutilation, just as mutilation is less extreme than killing. The slave can always hope for freedom. It is also true that the world has already moved a long way in the direction of slavery via state serfdom under the name of "welfare legislation," as Belloc noted in his

Servile State as long ago as 1913, and under the name of "planning," as Professor Hayek has more recently shown in his *Road to Serfdom*. Bismarck began this "progressive" socialist slavery in Germany some time ago. Even in peace a certain amount of compulsion was applied to laborers in National Socialist Germany and is apparently a permanent thing in the Soviet Union. Nevertheless, most of these movements have been carefully camouflaged. Among the Western powers, at least, dislike of the idea of slavery is still strong. Moreover, the proposal to use Germans as slaves has already been denounced by powerful American labor unions, who see the wage scales of their members threatened by it. All told, therefore, the possibility of holding masses of German men in convict gangs long enough to make a serious cut in the German birth rate seems very slim.

On a slightly milder level of ferocity, a fourth method of destruction is destroying people's local attachments by forcibly exiling them—in the current phrase, "deporting" them—from their homes. The calculation here is that the exiles, with their local attachments broken and most if not all their property taken from them, will be less formidable than before. This, like massacre, mutilation, and enslavement, is a recent revival of an ancient method against which Christendom long set its face. The Assyrians, whose name is still a byword for methodical cruelty, were great deporters. Here I digress for a moment to note that those who connect artistic forms with the spiritual state of their creators may ponder the Assyrian architectural suggestions of the "modernist" capitol of one of our American states, and of Rockefeller Center in New York. The spirit of Assyria is certainly coming to life again. The Assyrians, however, were not alone in their practice of deporting their victims. As in the matter of total massacre, there is an account of a famous deportation in the Old Testament: that of the Jews by the Babylonians—in this case the Jews were the victims instead of the perpetrators as in the case of the Amalekites. In recent times the most conspicuous examples have been the Soviet deportations of "class enemies." William L. White tells us that the Reds call such things "social engineering." The Soviets have proposed the exiling of all Germans from Silesia and from the formerly German territories east of the Oder River.

Here, however, we begin to meet the difficulties of incomplete destruction. Exiles are not physically and therefore finally, in an

earthly sense, destroyed. Hence they may become dangerous. In ancient Greece exile was common and was considered the harshest punishment next to death. There is a story—repeated, I think, in Toynbee's gigantic *Study of History*—of a man who prospered greatly "until he happened to land upon a certain island, not knowing that it harbored a number of exiles from his native city." The ancient chronicler says no more. The man's fate is taken for granted, and we can only hope that the exiles killed him quickly. As we all know, the Jews in their Babylonian captivity preserved their unity—"By the waters of Babylon we sat down and wept. How can we sing the songs of Zion in a strange land," etc. Never one of the conspicuously great military peoples of the world, they do not seem to have become a political danger to their deporters, but at least their gratitude to the Persians who restored them to their homes must have made their part of the subsequent Persian empire easier to rule. In the case of recent Red exilings the vast extent of the Soviet Union gives great scope for the policy. Even so, exiles often have long memories. In future, should the fate of the Soviet government hang in the balance, unexpected reinforcements from remote places might join its enemies. The chances of forcible deportation acting as a boomerang would be increased if the exiled Germans were not shipped off in cattle trucks to the Arctic Circle or Siberia but were sent to join their fellow Germans west of the Oder. Should the Soviet again be engaged in war on its western borders, those exiles or their children might determine the German attitude toward the war.

If the moral and political difficulties in the way of mass killing, mass sterilization, or large, long-term German labor gangs seem too great, what then? Abandoning the idea of wholesale destruction of existing Germans, of future German babies, or of German homes, we might at least strike terror by destroying everyone against whom we can find evidence of individual crime. In other words, we might try to reinforce a considerable minimum of destruction with the idea of justice. Now, perhaps there is something in that. When we look again at the June 2, '45, article in the *Herald Tribune*, the appearance of six German witnesses against the murderers of the American airmen seems hopeful.

On the other hand, this method too has its drawbacks. The mere killing of real or alleged war criminals, however numerous, will

certainly not reduce the numbers of the next generation of Germans below the danger point, as more sweeping measures would. In the long run it will still leave our former enemies powerful enough to shape their own destiny and to affect that of their neighbors if not of the world. As soon as we begin to talk about justice we have left the sphere of pure destruction and have begun to enter that of persuasion. Our severities against war criminals might be accepted by the Germans as just, and again they might not. The Germans themselves must be the sole judges of that. Hence, from our point of view, all sorts of uncertainties open up. Destruction by superior physical force is a sure method, provided only that the willingness to destroy does not falter, but attempts at persuasion are very different.

In other words, we are no longer discussing a clear-cut policy of reconciliation or of destruction but a mixed policy combining features of both. Such a policy may be praised as a compromise or damned as a half measure. For the moment let us content ourselves with noting that it too has its difficulties.

A good example of what these difficulties might be is the case of the German captain Schlagetter. When in the early 1920's the French occupied the Ruhr mine and factory district in order to enforce the payment of reparations, the German government could not fight back and did not try. Instead Berlin unsuccessfully attempted passive resistance, remaining legally at peace with Paris. During this false peace Schlagetter, evidently a courageous man, was said to have committed or attempted acts of sabotage—the derailling of French troop trains, if the writer's memory serves. In any case, he was accused of killing or of trying to kill numbers of French soldiers, was caught, and duly executed. From their point of view and from that of the international customs somewhat loosely called international law, the French seem to have had a perfect right to kill him if they chose. But what happened was that he became a patriot martyr. His grave became a place of patriotic pilgrimage. His brave deeds in the hour of Germany's helplessness were publicly celebrated, and thus his legend helped to inspire the Germans to another war—which now seems to have been an undesirable result all around.

Let us consider our proceedings against war criminals in the light of this incident. Our object, we of course assume, is not mere

vengeance and the satisfaction of hatred. It is the vindication of outraged justice against those who have done vile and horrible deeds. Yes, but will the Germans of the future see it that way? It will not be a question of what we think they ought to think. If they live they will decide for themselves. Further, with the best will in the world, we will not be able to help committing at least some real injustices, which to the Germans will cry to heaven for vengeance. Try as we may, human justice cannot always be the perfect justice of God. This is by no means a reason for letting murderers and torturers go free; far from it. But whenever there is a flaw in our war-criminal procedure, or whenever we stretch our definition of war crimes beyond a certain point—and no one can tell just where that point will be—we shall only be darkening our own future.

It is a pleasure for once to be able to agree with the lively Irish puritan, Bernard Shaw, when he makes Caesar say: "And so, to the end of history, murder shall breed murder, always in the name of right and honor and peace, until the gods are tired of blood and create a race that can understand."

Another example of mixed destructive and persuasive policy would be the partition of Germany. Here we are reminded of the old Roman story of the Sibylline Books. The sibyl, it is said, originally offered nine books setting forth the religious observances necessary to avert extraordinary calamities, such as pestilence and earthquake. When her offer was refused on the ground that her price was too high, after burning three she returned, asking the same price for the remaining six. Again rebuffed, she burned another three and came for the third time, still asking the original price, which was at last paid. In the modern analogy, the victors of 1918 had a better chance of destroying the unity of Bismarck's artificially constructed Germany and of persuading the non-Prussian Germans to consent permanently to the destruction of that unity than we shall have if we attempt the same thing tomorrow. As we saw in Chapter II, those victors might have preserved or restored the little German reigning families which had been the traditional centers of German separatism in opposition to Berlin. They might have, among other divisive measures, made a British prince sovereign over an independent Hanover, from which Prussia in 1866 had ousted a kinsman of the present British royal house. In 1919 Bismarck's novel creation was only forty-eight years old. Today Berlin

has been an imperial capital for seventy-four years, and the tradition of the smaller German dynasties has been weakened. It may well be that partition would be wise. The present writer, for one, believes that it would; but it would have to be attempted under conditions less favorable than those which history, like the sibyl, offered after the last war. Here again, as in the case of striking terror by executing war criminals and by any other means short of physical destruction, the various Germanic peoples included in the Reich, if partitioned, will in time decide for themselves whether to remain apart or not. Whether or not language nationalism has passed its peak, and we may hope that thinking men will increasingly see it for the idol that it is, language is a great bond of union. According to every indication, the idea that peoples of the same speech should have a common government will die hard, if indeed it does die.

We may end this brief but comprehensive summary of what might be done with the Germans by noting that strategic bombing—so unfavorable, as we have seen, to reconciliation—has proved impotent to destroy or even to terrorize them. The aerial bombs which have smashed so many houses and precious relics of the past have been singularly ineffective against the German people. If we are still out to kill an appreciable number of them, we can do so more economically on the ground. Systematic terrorization and even the extermination of conquered civilians, although long unfamiliar to us of Christendom, have been commonplaces of Asiatic and savage warfare. The names of Attila, Genghis Khan, and Tamerlane come to mind. If our recent moral "progress" continues, we might be able to find sufficiently hardened ruffians to do our baby killing for us economically at close quarters, instead of impersonally and ineffectively, i.e., at great expense, from high in the air.

As for the Japanese, few if any of those who have studied that people so alien to ourselves seem to agree in forecasting what may be the political and social impact of the defeat which we have inflicted upon them.

Meanwhile, as the heading of this chapter has reminded us, the future of the Germans and the Japanese seems incidental to that of the Soviet Union in relation to ourselves.

To us the U.S.S.R. is dual. Territorially and in blood it is the heir of the Russian czardom, a huge mass of people, predominantly but

not exclusively Slavic, inhabiting a still vaster extent of land-locked soil and constantly reaching out to ice-free water. In that quest, wherever the Red armies have gone they have been following in the footsteps of the soldiers of Holy Russia. Not long after the French Republic, having recognized the Soviet, had turned over to it the old Russian embassy in Paris, an American diplomat was talking with a Soviet colleague in a great room in that embassy, from the walls of which fine portraits of former czars looked down upon them. In those days Soviet diplomats were more apt to be Jewish than they are today, and this particular one was indeed a little Jew, in many ways as unlike his czarist predecessors as he could be. As they talked, suddenly it struck the American that the objectives of Soviet foreign policy as set forth by his interlocutor were precisely those of the Russian nobles who had sat in that room before them.

Nor are territorial matters the only points of likeness between the old Russia and the U.S.S.R. Spiritually as well as geographically the huge east-European plain has always been a frontier between Europe and Asia. Nearly a thousand years ago the Russians received the Faith not from Latin or Celtic-speaking missionaries like our west-European ancestors but from Greek-speaking men of Constantinople. The spirit of Byzantium, where gorgeous mosaics with golden backgrounds looked down upon emperors who were esteemed the first servants of Christ and the defenders of their people against the constant menace of a world of enemies, was the soul of the czardom. The czar was above all "the Orthodox czar," and it has been well said that the splendid ghost of the Byzantine Empire still walks in every Orthodox church service.

The Orthodox seem strange to us in many ways. For instance, it is a commonplace to them that the dangers of a Christian empire are less than those of an imperialistic church—a feeling which the West has not always shared. Something of political passiveness, no doubt, underlay their submissiveness before their autocratic rulers, but also a real sense of a crying need for unity and discipline under an all-powerful commander in chief. The repeated disasters and the desperate rallies of their stormy history have made the civic liberties which some of their cities once shared with us of the West seem irrelevant, and have reconciled them to a perpetual, ever present governmental spy system against which our whole being would revolt. Again, we may note their astonishing constancy in the Faith.

A glance at a religious map of Europe shows that throughout its western provinces the boundary between the Catholic and the Protestant cultures is that of the political settlement at the end of the seventeenth-century Religious Wars. Everywhere in the West except in southern Ireland the governments had their will with the beliefs of their subjects. The same was true, at long last, of the Moslem rule in Egypt and North Africa. But in eastern Europe when Turkish and Tartar rule ebbed away the peoples were as Orthodox as before.

From Byzantium Moscow also inherited the Roman hope of bringing political salvation, of uniting under herself an orderly and peaceful world in such happiness as is possible to sinful man. Those of us who can recall the Vergil of their schooldays will remember that he sees the imperial rule of the first Rome not as an oppression but as a peace bringer, a shield against oppressors, almost a messianic hope. Strange though it seems to us, Holy Russia inherited this exalted sense of mission. Both the first Rome and the second Rome in Constantinople had failed, but Moscow was the third Rome which might still unify and redeem mankind.

At the same time this profoundly Christian state on the frontiers of Asia was set apart from western Christendom by the fierce memories of many centuries of bitter warfare against Roman Catholics and Protestants willfully blind, so Russians thought, to the holy wisdom and healing strength of Orthodoxy. On the other hand, Russia was inevitably and deeply touched by the un-Christian East. The western culture of the Russian gentry was a thin crust beneath which vast elemental things moved freely. Russian spirituality went hand in hand with an Asiatic indifference both to the infliction and the endurance of physical pain—an indifference of which only Spaniards in the West have an inkling. Even the educated Russians sometimes felt a sense of kinship and sometimes one of profound hostility toward the West. Scratch a Russian and you find a Tartar, the old saying went. A photograph reproduced not long ago in American newspapers illustrates this perpetual to and fro. Its background shows the scarred walls of Peterhof, Peter the Great's palace with a German name, just as the retreating German armies had left it with its walls deeply scarred by high explosives. In design that palace was and is a wholly Western thing, but before it in the picture there is a representative of the victorious Red Army who is not

European at all. He is a little Tartar horseman with a flat face, mounted upon a shaggy pony—the little equine runt of the steppes. Asia has returned.

The obvious hardihood of the little horseman, although not his diminutive size, recalls still another basic Russian trait: the physical vitality of that people. The Russian armies constantly marching to the warm seas have never lacked recruits. The Chinese and the Hindus, who alone exceed them in numbers, fall far behind them in animal strength. For centuries the Russians' sense of mission has animated a constantly rising human tide of youth and hope, often feared by their neighbors as an overwhelming menace. Two very unlike Westerners of the last generation, Kipling and Henry Adams, in their different ways vividly expressed this. Kipling's "Man Who Was" makes a drunken czarist officer say: "The Tzar? Pouf! I snap my fingers at him. But in us Slav who has done nothing, in him I believe. Get away, you old peoples, get away!"—and then he sinks in a stupor under the hospitable table of his English hosts. *The Education of Henry Adams* records how Adams saw czarist Russia as a sort of human glacier, slowly spreading outward and threatening to crush the rest of mankind by the mere weight of its multitudes.

And now what do we see? We are reminded of the words of the enigmatic Talleyrand, the cynical and often shameless man who nevertheless made the last real peace which our tormented civilization has known. In his old age he who had seen so many revolutions and so much bloodshed smilingly said of his native France: "*Plus ça change, plus c'est la même chose*"—the more it changes, the more it is the same thing.

The Romanoffs and—except for a few helpless remnants—all the gentry who served them were murdered or exiled. What was the Russian Empire is now the Union of Soviet Socialist Republics, inspired no longer by traditional Orthodoxy but by the most "advanced" and "progressive" of Western political theories. For years the very name of Russia, so it is said, could not lawfully be pronounced on what had been Russian soil. A Jew whose real name was Mordecai, calling himself Karl Marx, has replaced Our Lord as the source of doctrine, and the memory of Saint Vladimir, the first Christian king in Russia, has been replaced by that of Vladimir Ulyanoff, who called himself Lenin and founded the Soviet state.

And yet how many similarities are as strong as ever! Although the new autocrat who sits in the Kremlin, not even a Russian but a Georgian from south of the Caucasus, calling himself not by his father's name of Djushashvili, but by the nickname of Stalin, "man of steel," is a former bank robber and train robber in company—so it is said—with the Jew Litvinoff-Finkelstein-Wallach, nevertheless he rules from the Kremlin in the same despotic fashion as the old czars of all the Russias. Instead of the former gentry and officials, his elite is the Communist party, but underneath a masquerade of meaningless one-party elections the grip of this new governing group upon the masses is as firm as that of their aristocratic predecessors.

All the other basic Russian traits are the same—the constant effort at territorial expansion toward the ice-free oceans, the intense national patriotism sharpened by spiritual isolation from all their neighbors, the messianic hope in a naïve new form, the perpetual hesitation between Europe and Asia, the indifference to pain, cruelty, or even physical discomfort, above all the ever swelling flood of hardy and genially simple people.

Were these things all, Americans might say: The new Russia, so different from ourselves, does not much concern us. Its outlandish ways can lead to no territorial quarrel with ourselves. Indeed, in some ways the Russians are more like ourselves than western Europeans. They and we have vast continental spaces in which to sprawl, while any European country can be flown over in next to no time. When a European speaks of a long railway journey he means one of a few hours, while we and the Russians mean one of day after day and night after night. Even our bursts of energy are somewhat like theirs, whereas Europeans work more steadily but less intensely.

These things, however, are not all. Both west of the Atlantic and east of the Pripet Marshes, ideas have power, and those ideas confront one another with a sword of the spirit in the hand of each. The Soviet creed, however crudely and even childishly materialistic, can generate a flaming faith. Moreover, like the crude religion of Islam in its apostolic days, communism is an aggressive cult, admirably calculated to the weaknesses and divisions of those whom it attacks. It fastens eagerly upon the disease of proletarianism with which usurious finance and the desire to spend rather

than to save have infected us. So flies settle upon a running sore. It allies itself with every revolt among us against the Faith and the traditions by which we live. In a theologically decadent and therefore intellectually uncertain Western world it can mouth vague phrases of justice and good will, making us momentarily forget that it is only tyranny and wholesale theft, established by means of wholesale murder. We can appropriately recall what rough old Dr. Johnson said to Boswell of an eccentric eighteenth-century English communist: "Sir, he does not say that seriously. Or"—after a pause—"if he does, let us count our spoons." In a word, communism is crime.

Not only is the communist denial of ownership a crime according to the laws of our cultural ancestors from the beginning of human records; according to the head of the largest existing Christian body that denial is also a sin, because it denies a right which is natural to man. To forbid the ownership of productive property is to leave individuals, families, and voluntary associations such as churches defenseless before an all-powerful state.

That state must be in practice a despotic dictatorship. No authority subject to discussion and permitting freedom of speech and legalized opposition could possibly direct the economic as well as the political life of millions. In this the communists are the only clear-sighted socialists, as opposed to those amiable but unpractical men who imagine that at least a remnant of civic liberties could be combined with "nationalized," i.e., stolen, means of production. Even voluntary communism like that of monks and nuns, a holy thing which can and does in practice support those liberties, might seem to threaten them as with a dead hand should it grow overmasteringly great. As we have seen, the political tradition both of Russia and of the whole Orthodox culture is one of a larger measure of autocracy than would be possible elsewhere among Christian men. Obviously the average Russian, remembering the czar, does not see in the new master of the Kremlin so intolerable a tyrant as we would in like case. Even so, the fact that during the present war the former Red general Vlasoff was able, in spite of the traditional strength of Russian patriotism, to raise an army of half a million anticommunists is eloquent. After a quarter of a century of bolshevism his slogans of land for the peasants and restoration of the Orthodox Church evidently had some appeal. German propaganda

hurled many slogans against the loyalty of Americans without persuading one battalion of United States citizens to fight against their government. In short, American liberties have produced a more perfect union than the Soviet despotism.

Here we briefly turn aside to note the limits of Soviet toleration of Orthodoxy. Within the iron circle of communist dogma, of course, there is room for political shifts. On everything except fundamentals the "party line" can change. How far is this particular change fundamental? There are more than straws in the wind to tell us that the tolerance extended is of a grudging sort. There is reason to believe that churches in the Soviet Union are still at least moderately penalized. For instance, it is reliably reported that they must pay higher rates than any other consumer of public utilities such as electricity. Again, an item in the *New York Times* of June 6, '45, about the "Agitator's Notebook" of the Soviet Communist party—the absolute master of the U.S.S.R.—says: "Communists the world over, if they care to read the Notebook, are told that, despite the new attitude toward religion in Russia, 'science has proved that the legends about the supernatural early origins of man are untenable.'" In other words, the Reds are still saying—and well they may for their own purposes—that notions about man being the child of God and made in His image are all bunk. Science by examining the natural world has disproved the supernatural! As for Orthodoxy, it is all too accustomed to infidel rulers and confidently hopes to survive them all.

What must be the basic opposition between communism and any form of the historic Christian church is increased because in so many matters the new thing copies the old. One might almost say that communism skillfully parodies the early church. Like the church, it claims to have a message of hope and to be a guide for the spiritual energies of all mankind. Indeed, its present power to inspire men, however momentary that power may prove, is too often a reproach to our own lukewarmness. Moreover, the new creed imitates the old in that it vests itself in a strictly ordered organization. The Communist party itself corresponds to the early Christian bishops and other clergy, the agitators are the missionaries, the noncommunist masses which consent to rule by the party more distantly resemble the faithful laity, and the insistence upon the "party line" recalls the passionate zeal of the early Christians for the unity of the

church. So many and so exact are these likenesses that some have called communism Antichrist, who, incidentally, often appears in Russian folk tales.

Finally, this materialistic church which challenges equally our religious tradition of the importance of individual souls and our political tradition of civic freedom is also a state which territorially challenges other peoples whose forms of thought, by comparison with those of the Soviet state, attract our sympathy because they are like our own. Already the U.S.S.R. has quarreled bitterly with the legitimate government of the Roman Catholic Poles. Already communism has carried its red terror far and wide across eastern Europe. Tomorrow it seems that it must clash with the imperial necessities of the British people, most of whom without tribute from overseas must migrate or starve. To enlarge here upon our various connections with the English and Scotch and upon their many means of influencing our decisions would be a waste of time.

Ten years ago the talented French admiral Castex, in a book called *La mer contre la terre—The Sea against the Land*—foresaw a coalition war of the sea powers against the Soviet. With inexorable logic he distinguished between the "regular" or "legitimate" aggressors of modern European history—the Austria of Charles V, the Spain of Philip II, the France of Louis XIV, and the Germany of 1914—and the irregular or usurping aggressors—Revolutionary-Napoleonic France, German national socialism, Italian fascism, and the Soviet Russia of tomorrow. He showed the mystical fanaticism and the violence and the terrorism of both sorts. Still more effectively, he analyzed the usurping, revolutionary aggressors, with their nationalistic lust for conquest doubled by their world-wide ideas and exasperated by their secret knowledge of their own fragility. In page after closely reasoned page, the gifted Frenchman shows how the revolutionaries of the present must, like Napoleon, provoke world conflicts until they themselves are destroyed.

But does all this add up to a necessity for war between the United States and the Soviet? By no means.

All the more because we live in a world of increasing legal compulsions and reliance upon naked force, we should hold fast to the subtle but necessary truth that force is not all-powerful. Use it excessively, and it recoils upon you. Every city needs a police department, but if too many citizens spent much time in policing, that

city would either have to live on charity or starve. However great the passions which communism and the reaction against it may arouse, they can hardly be greater than those which inspired the torturings and massacres of the Religious Wars of three hundred and more years ago. Even though someone should maintain that we might be happier today had the religious quarrel then been fought out to a decision, surely there is even better reason now than there was then to pause.

The obvious difficulty of gaining a final military decision over so vast a country as Russia, inhabited by hardy people averse to having foreign armies on their soil, is the least of the matter. Should the Soviet sufficiently provoke the rest of mankind, then there will doubtless be a coalition against it as there has been against the great aggressors of the past. Should that coalition be formed, we shall be tempted to be a part of it. Nevertheless, we shall do well if we are very slow to be provoked to war. It is true that the U.S.S.R. is like David's cave of Adullam, to which ". . . every one that was in distress, and every one that was in debt, and every one that was discontented, gathered themselves. . . ." (I Samuel 22:2). No doubt, were the Soviet destroyed in war, and replaced by a regime more consonant with traditional ideas, the prestige and wealth which now permit that state to encourage revolutions and civil wars elsewhere would be gone. However, let us suppose the Red armies to have been defeated on Russian soil but not destroyed. In that case the Russian people might become far more unanimously attached to communism than the Vlasoff episode proves them to be today.

Most important of all, even complete military victory over the U.S.S.R. would not touch the roots of the internal discontents which alone make the communist idea a danger to us. On the contrary, those discontents might be increased by the strain of the war, even of a victorious war. Not communist agitation but the insecurity bred by usurious finance and proletarianism is our internal disease. Could we encourage the permanent human desire for ownership and discourage those tendencies which make for insecurity, communist and leftist agitation would presently become not a menace but a joke. Given the world of today, no one in his senses will say that such a job would be easy. I maintain only that such is the job—not the planning of a campaign to take Moscow plus western Siberia.

Danger of war in any society is measured by the degree of discontent with the previously existing peace, plus the hope of armed remedy. Everywhere and always in this imperfect world there must be some discontent, some organized force, and some permanent risk—however limited—of battle, murder, and sudden death. When discontents are great as they are today, those peoples who would avoid armed invasion must indeed be strong in arm and moderate in policy.

Nevertheless, the military and political aspects of the matter are subordinate to the ethical. Contentment begins with a sufficient number of reasonably contented individuals.

Here the historian of ideas takes the center of the stage, shaking his head sadly. Edmund Burke, he tells us, said in a famous phrase that you cannot indict a nation. But in order to increase contentment today you must not only indict but change the whole current of modern thought. For nearly 150 years the voices which have been most widely heard have been those which preach discontent. They indeed called it "divine discontent," but the result has been far from divine.

Ever since Rousseau, to name only the earliest prominent figure in a continuing and world-wide movement, the mystical truth of the equal value of all souls has been supported by the murderous lie that at bottom man is wholly good. Consequently, worshipping himself, he has no longer sought happiness in disciplining his instinctive appetites and especially the appetite for power. Instead he has struggled chiefly to amend external things, laws, constitutions, and whatever may have been the previous condition of peace. In short, modern man is still vainly in search of his soul.

Turning from this grim prospect, we may look to the future with more courage, if we remember that the problem is permanently human and has been solved with considerable success by men who were materially poorer and historically less experienced than ourselves.

In a certain house looking out over tidewater there are three objects which symbolize the three solutions that Western man has found. Of course, those solutions were temporary and imperfect like all human things, but all gave a real measure of peace which was in its time found tolerable.

The first object is a marble bust of the young Augustus. The face is not striking. Compared, for instance, with that of Caesar, it is lacking in expression. Clearly the original had no great physical strength and may well have suffered from weak nerves. Nevertheless, the forehead is broad with intelligence, the eyes are steady and level, and below the delicate nose and sensitive lips the pointed chin is determined.

Such were the youthful characteristics of the man who ended four centuries of great wars in the Mediterranean world and established a peace little troubled for more than four centuries to come. During those centuries and long afterward, the most learned scholar could hardly name one civilized city known to have been destroyed in war. With occasional and socially trivial exceptions, the Roman peace was kept from the Atlantic to the Euphrates by a professional army which for generations after Augustus cannot at most have greatly exceeded a third of a million—an "international police force" indeed.

The second object is a bronze statuette of a medieval knight clad, but for the face, all in chain mail and with a cross-hilted sword at his side. His arms are raised in the form of a cross, and in his hands he holds the ends of a scroll on which is written the word "Credo."

Such, save for the scroll and motto which would then have been superfluous, were the fighting gentlemen, rich men turned soldiers, who, in the Dark Ages when professional armies could no longer protect the West, organized the feudal militias. Fighting among the foremost, they turned back the heathen and established within Christendom another strict limitation of war. Where they ruled, tiny armies in short campaigns settled the frequent armed squabbles between Christians without appreciable harm to the Christian commonwealth.

The third symbol is a portrait of an eighteenth-century gentleman in a black velvet coat with white lace at his neck. His hair is powdered white in the fashion of his day, and he has the high retreating forehead seen in so many of his contemporary pictures. He himself is a big man with the high color of full-blooded outdoor life. His nose is prominent and a little aquiline, the whole face expressing great energies and violent passions admirably controlled. Although there is a certain look of harshness and coldness about

the lips, we know from the records of him that this was not natural but was due only to false teeth which did not fit well. Those records are abundant, for his name was George Washington.

If his leadership of the first revolutionary upheaval which shattered the calm following the Religious Wars makes him a less perfect exemplar of limited war than Augustus and the knight, nevertheless his story has much in common with the strict eighteenth-century limitation. The richest American of his time, he was the antithesis of revolutionary class war. His revolution was not inspired by disastrous dreams. It was aimed squarely at sane political ends. In the best sense of an abused word, it was practical. Moreover, it soon led to the establishment of a government so unquestionably legitimate that it still survives all subsequent storms.

Consequently the portrait of this despiser of slovenly conscript militias may remind us of the disciplined eighteenth-century regulars who were so carefully trained to spare civilians. In his own person no man better personified the moderation which at its best was the glory of eighteenth-century governments.

If neither the imperial Roman, the medieval, nor the eighteenth-century limitations of war can serve us today as a model for exact copy, at least in their several ways they point to the goal toward which we strive. Unlike the world of Augustus, ours is neither worn out with centuries of bloodshed nor ready to submit to rule from a single center. Unlike medieval Christians, we have no defined and common faith. Unlike those of the eighteenth century, our literature and our so-called philosophies admire anything and everything except moderation.

But if the answer to the riddle of peace is not for us, at least we can spell out a few syllables of that answer. Perhaps the historians of the future may say: How strange it is that the early twentieth century, which fussed and fumed so over such unrealities or oppressions as a world government and an international police force, should have so neglected those wise men who worked so earnestly for that religious reunion of Christendom on which the future peace was to be built.

Certainly, if our descendants can still read and write history, they will admire any nation which, although strong enough to dominate over others, preferred peace through power over itself.

As this book goes to press both the general problem of limiting war and the immediate problem of World War III have been affected by the "atomic" bomb. Many are hoping that the terror inspired by the new weapon may bring about an era of peace. Perhaps the most notable statement is that of a distinguished educator, Dr. Robert Hutchins of the University of Chicago, who is reported as saying: "Up to last Monday I was opposed to the idea of a world state because I believed that no moral basis for it existed—no world conscience or conviction of the world community sufficient to keep it from disintegrating. . . . But . . . only through the monopoly of atomic force by a world organization can we hope to abolish war."

Passing over the unguarded phrase "abolish war"—which, to take it literally, would involve the impossible task of wiping out organized force among mankind—we may note that a world state already exists. It consists of the American and British governments which possess the secret of the bomb, first of all the American because only the United States possesses also the plant for its manufacture.

For the moment the United States and its British ally constitute a world state because everyone knows that today they wield irresistible military power. They will continue to wield it as long as they alone can make atomic explosives. For the moment they are masters of the planet. Were they aggressively minded they could make themselves its tyrants.

Nor can they be stripped of their absolute power overnight. They could not even strip themselves of it at once, for even if they shared the secret tomorrow it would take an appreciable time before any non-English-speaking group could assemble the necessary machinery and materials. Two years is the shortest competent estimate which the writer has heard.

On the other hand, this vast power will be exclusively theirs only for a time. So great is the number of experimenters in physics throughout the world and so nearly equal is their common background of knowledge that normally when an invention is made it is found to have been on the eve of being made independently elsewhere. Consequently, no matter how closely we may guard our secret, we must expect others to find it within a few years. Five

years, estimates Hanson Baldwin of the *New York Times*; another good authority known to the present writer says six.

What then shall we do with our mastery of the world while we have it? As we saw in Chapter X the technical essence of the thing is the indiscriminating power to destroy a given area. Were we an aggressive or thoroughly imperialistic nation we might spread random destruction and the threat of it far and wide, until all peoples trembled before us. Thanks to the release of atomic energy, the swine's hoof of twentieth-century barbarism would then be heavier than before. In our age of "people's wars" and the "rule of the common man" that barbarism was already formidable, but we might outdo all previous records in massacre.

Fortunately for the world and, I think, for ourselves, we shall be little tempted by such prospects. As we saw in Chapter XI, the few imperialists among us must go warily, disguising their proposals in order to make them seem acceptable. We shall be tempted not so much to world conquest as to sloth and the utterance of empty words, like the man in the Parable of the Talents who hid his talent in the earth and was punished for doing nothing with it.

Surely the wise and manly part is to consider prayerfully how we might best use our vast but temporary power. That power, which has come to us almost unasked, is indeed a fearful thing. Chesterton called the sword "a fairy wand of great fear." How much more the new bomb. Nevertheless we have it, and as a nation we shall some day answer for what we do or do not do with it. Can we use it to make the world more peaceful? We cannot escape the fact that, under God, we are today the Lords of Life and Death over every city in the world, and according to a certain book the fear of the Lord is the beginning of wisdom. Only a beginning, to be sure, for no fear, however great, can by itself create the sense of justice.

How then, during the few years in which no one will dare to fight us, might we make the world more peaceful by giving it a greater measure of justice?

That we are not God, who is justice itself, but men capable of follies and crimes, is not an argument for inaction but for moderation. Even a short step toward ideal justice, even a fragmentary working agreement as to fair dealing would benefit our chaotic time.

On one important matter concerning justice practically all Ameri-

cans and Englishmen agree. We say: It is right that men should be free, and we define freedom very largely. The very idea of freedom is closely intertwined with our traditional religion, which emphasizes the human power of free choice by the doctrine of free will. It is typical of our spirit that even the minority of Christians who have denied free will in words, the seventeenth-century Puritans, for instance, have been conspicuously strenuous in demanding liberty of action for themselves. Politically our tradition of civic liberties is older than Christianity. It goes back to the high republics of the ancient world. Internationally we permit duly accredited citizens of other countries to go where they please among us, and within very wide limits to see what they like and say what they like about us and our affairs. Moreover, as far as international custom is concerned, practically all countries of importance—except one—grant our nationals much the same freedom as we accord to theirs. Although of course we are far from claiming perfection for what we do, still our religious, civil, and international liberties are dear to us. When any of them is flatly denied it is hard for us to believe that the motives of the deniers can be good.

One great power in the world of today, the Soviet Union, denies in one way or another all the liberties which to us are as natural as the air we breathe. From freedom of religion, habeas corpus, and the Bill of Rights, to permitting foreigners to circulate freely, that vast state does not admit a single one.

While the Soviet peoples consent either actively or passively to being governed as they now are, no doubt such government is their privilege. In a phrase suited to our own Western civilization, we might add that it is also their right. As we saw earlier in this chapter, historical causes may explain their attitude.

But what about the Soviet and ourselves? Both before and after our joint victory they have surrounded themselves with an almost impenetrable barrier. Not only in their own country but wherever their armies have conquered, the same black curtain of secrecy has fallen. And while denying to visitors from us the same liberties which we freely grant to visitors from them, they have not been backward in asking us to sell them on credit much that they cannot make for themselves.

Until yesterday it could be argued in favor of concession after concession to the Soviets that they were very strong and ruthless.

We are now free to say to them very gently and peaceably, that our sense of justice would be better satisfied if they somewhat altered their international conduct. Especially we might ask them, in view of the liberties which their citizens enjoy among us, to allow duly accredited travelers, and most of all reputable newspaper reporters, to circulate freely in the Soviet Union, writing and photographing as they chose. Specifically military secrets, of course, would be barred to them.

In this first year of atomic power no more peaceable step could be made. The principal aggressive and potentially war-making force in the world today is the attempt to extend the dictatorial Soviet police state by propaganda and by arms, propaganda of course coming first. The basis of this propaganda is the tolerance shown to Communists and "fellow travelers" outside of the Soviet state plus the restrictions placed upon non-Soviet travelers and especially upon the reporting of conditions inside that state. We might also mention the violent attempts by Soviet sympathizers to suppress the few free criticisms of Soviet conditions—for instance, the amazing campaign against William L. White's frank but good-natured book *Report on the Russians*.

The first effect of a public request by the United States government for the lifting of the Soviet censorship so that American reporters, like Soviet citizens here, could move about and write freely, would be to call the world's attention to the severity and one-sidedness of that censorship. Hardly any Americans or Englishmen would deny the fairness of asking for a measure of international equality as to freedom of speech and of the press. The mere making of the request might increase the internal unity of the English-speaking countries.

The Soviets would be free either to accept and to carry out their promise or to refuse. They would hardly be free to make war upon us—if only because of the atomic bomb.

In case of acceptance—and it would be hard to deny the fairness of the request—we would soon know the truth about the U.S.S.R. much better than we do today. We would then be able to decide more wisely as to which features, if any, of the Soviet system we might adopt.

In case of refusal we would certainly be no nearer to World War III than we already are. The Soviets would then have served formal

notice upon us that they preferred the secrecy of their one-party state to treating us on a basis of equal friendship. They themselves would be withdrawing into an isolationism far more extreme than any ever charged against American nationalists. They would be laying themselves open to the reproach of loving darkness rather than light because their deeds are evil. Incidentally they would be deliberately putting aside our economic assistance. Should they so act, then it might be suspected that they did so because they mean to attack us when they themselves have learned to make the new bombs.

At all events the Soviets would then be standing for inequality between nations, whereas we—in the famous words of the Declaration of Independence—would be showing a “decent respect for the opinion of mankind.” Thanks to our temporary monopoly of atomic energy we would have at least a few years within which we could be sure of not being attacked. During that time we would be free to decide what next to do. While the interval might be too short to solve the cancerous problem of proletarianism in accordance with Christian morals and with our tradition of civil liberties, nevertheless we might move toward such a solution. On the military side, we could vigilantly, calmly, and nonprovocatively await events.

It may be that the step which President Truman has already taken in withholding the secret of the bomb from the Soviets will go far toward determining the future.



BIBLIOGRAPHY

- Blunt, Flight Lieut. V. E. R. *The Use of Air Power*. Harrisburg: Military Service Publishing Co., 1943.
- Boyd and Gorzuchowski. *Polish Countrysides*. American Geographical Society, 1937.
- Brodie, Bernard. *A Layman's Guide to Naval Strategy*. Princeton University Press, 1943.
- Castex, Admiral R. *La mer contre la terre*, Vol. V, *Théories Stratégiques*. Paris: Société D'Editions, 1929-1935.
- . *Théories Stratégiques*, 5 vols. Paris: Société D'Editions, 1929-1935.
- Colin, Commandant J. *The Transformation of War*, trans. Brevet-Major L. H. R. Pope Hennessy, London: Hugh Rees, 1912.
- King, Admiral Ernest J. *Our Navy at War*, official report. March 1, 1944.
- Kipling, Rudyard. *Puck of Pook's Hill*. New York: Doubleday Page, 1906.
- Landau, Rom. *The Brother Vane*. London: Faber & Faber, 1944.
- Ley, Willy. *Bombs and Bombing*. New York: Modern Age, 1941.
- Mahan, Capt. A. T. *The Influence of Sea Power upon the French Revolution and Empire*, 2 vols. Boston: Little, Brown & Co., 1893.
- Marshall, General George E. "Biennial Report of the Chief of Staff of the United States Army, July 1, 1941 to June 30, 1943, to the Secretary of War."
- Richmond, Admiral Sir Herbert W. *The Invasion of Britain*. London: Methuen, 1941.
- Rosinski, Dr. Herbert. *The German Army*. New York: Harcourt, Brace & Co., 1940.
- Seversky, Major Alexander P. de. *Victory through Air Power*. New York: Simon & Schuster, 1942.
- White, William L. *Report on the Russians*. New York: Harcourt, Brace & Co., 1945.
- Woon, Basil. *Hell Came to London*. London: Peter Davies, 1941.

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